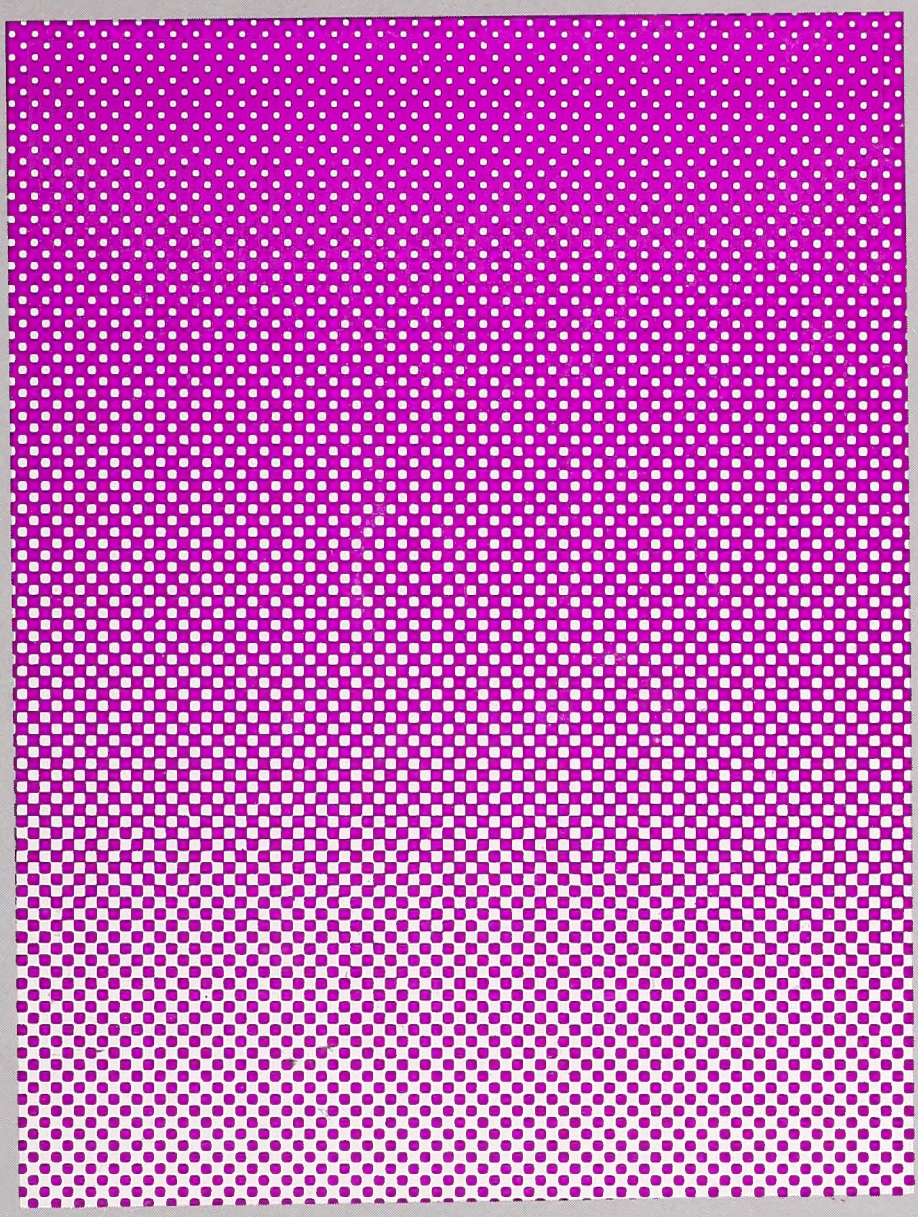
MEDICARE HOSPITAL MORTALITY INFORMATION





Volume IV

Massachusetts – Nevada

U.S. Department of Health and Human Services
Health Care Financing Administration

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MEDICARE HOSPITAL MORTALITY INFORMATION

1986

VOLUME IV

MASSACHUSETTS - NEVADA

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The Health Care Financing Administration (HCFA) was established on March 9, 1977, to combine health financing and quality assurance programs into a single agency. HCFA is responsible for the Medicare program, Federal participation in the Medicaid program, the Peer Review Organization program and a variety of other health care quality assurance programs.

The mission of the Health Care Financing Administration is to ensure the effective administration of our programs in order to promote the timely delivery of appropriate, quality health care to over 56 million of the nation's aged, disabled and poor. The agency must also ensure that beneficiaries are aware of the services for which they are eligible, that those services are accessible and of high quality and that agency policies and actions promote efficiency and quality within the total health care delivery system.

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The Administrator
Washington, D.C. 20201

INTRODUCTION

The nation's Medicare program, which is administered through the Health Care Financing Administration (HCFA) of the Department of Health and Human Services, now has 31 million beneficiaries. One of HCFA's primary responsibilities is to ensure that Medicare beneficiaries receive quality health care. We believe that the publication of the information contained in this document will contribute to that end.

This particular information release, presents information to answer the question: "What is the actual death rate for each hospital compared to what would have been expected for that particular hospital given what we know of the characteristics of patients admitted?" The statistics are presented in the hope that they will serve the public and the hospitals in their common interest of improving quality of care.

The development of mortality statistics is a complicated and controversial task since the mortality rate at a given hospital reflects, among other factors, age, sex, diagnosis, and severity of illness of patients admitted to that hospital, as well as the purpose and quality of the care they received. Characteristics affecting health and the probability of death vary among the patient populations served by individual hospitals. Consequently, the mortality rates in different patient populations will vary.

The usefulness of this information depends upon the accuracy with which mortality rates can be predicted and the stability of these rates over time for each hospital. It is important to understand that the predicted values in the tables contained in this document are not a direct measure of the quality of care rendered in hospitals. There is one primary reason for this. We do not now have any direct measurement tool with which we can adjust fully for differences among hospitals in how severely ill their patients are. For instance, two hospitals might have very different death rates for patients admitted for stroke, even after we have adjusted for age and sex. This might happen because one hospital's stroke patients consist of a significant number admitted in a coma and are thus likely to die, whereas another hospital's patient population represents a broader spectrum of patients with cerebrovascular problems, or because these hospitals in fact provide different levels of quality. In addition, other factors affecting the probability of death in a particular case, e.g., family status/support, and overall health status are not included in the predictive model because information on them is not readily available.

When properly understood and used, this information can be useful; it can also be very misleading if it is interpreted incorrectly. The information simply describes one aspect of individual hospital performance--post admission mortality for Medicare beneficiaries. The information is not necessarily representative of a hospital's total performance in all aspects of patient care, and is best used to view experience in individual hospitals rather than making comparisons among hospitals. Individual hospitals may have very good reasons for their rates being higher than the ranges predicted by HCFA's model. Accordingly, it was important for hospitals to have an opportunity to review their specific information and to provide comments to HCFA and the public. We asked each hospital to prepare its comments on the information being released to the public, and we are including those comments in this publication.

The information is an important contribution to the health care community and should be reviewed by a wide range of individuals and organizations including hospital administrators, Peer Review Organizations, physicians and researchers. Among these audiences, perhaps the hospital administrator will find the information most useful--as a screening tool and in consulting with medical staff to evaluate a hospital's strengths and weaknesses. In this way, the information should lead to analysis and subsequent actions which will capitalize on areas of strong performance and strengthen areas where improvement is needed. For example, we expect that hospitals and their medical staffs, using established and newly emerging quality assessment techniques, will try to determine what useful information can be derived about how they function.

Consumers should read the explanations of the uses and limitations of the information, as well as any comments a hospital may have provided, and should carefully consider the different roles that different hospitals play in their community. For example, one hospital might have different death rates than another because it serves more severely ill patients, because it specializes in difficult illnesses, or because it is a trauma or emergency center.

The development and presentation of this information is an important part of HCFA's responsibilities in the health care community, and follows nearly a full year of effort. In making the information as accurate and useful as possible, we discussed the theoretical framework and statistical approach with a number of national experts in appropriate fields. As a result, we believe the models used in this work are reasonable and appropriate for the intent of the publication. In addition, the format for presentation, the process for sharing the information with individual hospitals, and the statistical methodology have been discussed at a series of meetings with leaders of organizations representing Medicare beneficiaries, doctors and hospitals, and a great many suggestions from these groups have been incorporated into the final approach.

We are continuing to do everything we can to make these types of information more useful to both the public and the health care professions. We are refining ways to use the information as a screening tool for "quality of care" purposes, and we are developing tools to adjust for the differences in disease severity highlighted earlier. In addition, because we recognize that mortality rates alone do not adequately measure how effectively a hospital cares for its patients, we will be developing other measures of outcome, such as the kind of medical treatment needed after discharge, to assess the performance of hospitals more fully.

We have begun what will be a continuing effort involving all interested parties to improve the accuracy of outcome predictions by refining the model and the methodology. This will contribute to assessment of and improvement in the effectiveness of medical services.

William L. Roper M.D.

William L. Roper, M.D.
Administrator

DESCRIPTION OF INFORMATION

Before reading the tables containing the hospital specific information and the comments provided by individual hospitals, it would be useful to understand the format and presentation of the information in this document.

The information is presented in alphabetical order by state and by hospital within the state. For each hospital, information is presented for overall Medicare patient mortality and each of 16 diagnostic categories. The information consists of the number of Medicare patients, the actual mortality rate, and a range of predicted mortality given the mix of patients. It would be helpful to describe how the numbers were derived and what they represent.

- Number of Patients. This figure represents the number of individual Medicare beneficiaries whose last discharge from a short term, acute care hospital in 1986 was from the hospital listed. The total number for each hospital is presented under the category "overall." Similarly, for each diagnostic category, the number of patients consists of the number of Medicare beneficiaries whose last discharge in 1986 was from the hospital cited and whose primary diagnosis fell within the specific diagnostic category. (Generally the number of patients in the sixteen diagnostic categories will total between 70 percent and 80 percent of the figure for "overall." The remaining 20 percent to 30 percent represent diagnoses that do not fall within the 16 diagnostic categories specifically studied.)

  Since only a patient's last hospital discharge is "counted" in the total number, HCFA's computation and that maintained by individual hospitals will generally differ. For example, if John Doe was a patient at Hospital A three times during 1986, the methodology used in HCFA's analysis counts only the last admission in the hospital's total. Normally a hospital will maintain statistics based on numbers of admissions and so would count Mr. Doe as three cases. In addition, in this example, if Mr. Doe were admitted later in the year to Hospital B (another acute care hospital) and then discharged in 1986, and this latter stay represented his last discharge for 1986, his case would be counted in Hospital B's total and he would not appear at all in Hospital A's count.

  The key factor to remember is that we are examining last hospital discharges in 1986. In some cases, this will necessitate the inclusion of patients admitted to the hospital in December 1985 or those who died in January 1987.

- Actual Mortality Rate. This figure presents the percentage of each hospital's Medicare patients who died within 30 days of the admission that resulted in the last-occurring discharge of the patient in 1986. (The percentage is rounded to the nearest whole percentage point.)

  Where, for example, Hospital A had a universe of 1000 patients whose last acute care hospital discharge in 1986 was from Hospital A, and 100 of these patients died within 30 days of that last admission, whether as hospital inpatients or after discharge, the actual mortality rate would be 10 percent. This rate includes cases in which a beneficiary was admitted to the hospital in 1985, was discharged in 1986 and died within 30 days of admission. It also includes those instances in which a beneficiary was discharged in 1986 and died within 30 days of admission even though the 30 day period extends into 1987. Cases in which the beneficiary was not discharged in 1986

are not part of the rate, even though an individual may have died in 1986 or have died within 30 days of last hospital admission. For example, a person admitted to a hospital on December 20, 1985, who was discharged on December 30, 1985 and whodied on January 2, 1986 is not part of the calculation since the person was not discharged in 1986. Similarly, a person admitted to a hospital on December 28, 1986 who was discharged on January 5, 1987 and died on January 8, 1987 would not be a part of the calculation even though he or she died within 30 days of a 1986 admission.

- Range of Predicted Mortality. This column gives an estimate of mortality rates for patients equal in number and similar in characteristics to those treated by the hospital. The range is derived in part by determining, based on national experience, the relative risk of dying associated with various patient characteristics: previous hospital admission(s), transfer status, age, sex, and presence of up to eight comorbid conditions (cancer, cardiovascular disease, cerebral degeneration/psychosis, pulmonary disease, renal disease, liver disease, diabetes, hypertensive disease) and by applying weights of the risk factors to the actual number of patients at the hospital to enable compilation of an expected mortality rate. This rate is converted, through statistical techniques, to a range of predicted mortality rates. It is important to note that the fewer the number of cases included in a given diagnostic category, the greater the uncertainty of the expected mortality range, and therefore, the wider the range. A larger number of cases yields greater precision, and therefore, a more narrow range of predicted mortality rates.

HOSPITAL COMMENTS

On September 21, 1987, HCFA mailed to each hospital its own mortality information and asked for comments by October 28, 1987. These comments are arranged alphabetically by state and are included in this publication immediately after the tables presenting information for all the hospitals in a given state. The entry for each hospital on the state charts indicates where to find the hospital's comments and presents a notation (asterisk) advising of the absence of hospital comments. The page number where the comments of the hospital are presented is given next to the name and address of the hospital.

The comments are generally reproduced as submitted by the hospital. However, some hospitals returned to HCFA, an annotated copy of the information sent on September 21. These annotated materials have not been reproduced in this publication, even in those instances where they were the only form of comments submitted by a hospital. The reason for not printing these materials is one of privacy. Information which would identify or possibly identify patients must be deleted, and consequently any remaining information would be very confusing and of extremely limited use, if not totally useless. Therefore, we have included a statement to identify instances when these types of materials have not been included. As mentioned earlier, it is extremely important that the information presented in the tables be reviewed in concert with the hospital's comments.

In any project of this size, there will be instances where hospitals did not receive the information for comment or did not receive it timely. In fact, many hospitals were sent second copies of their specific information in an expeditious manner to allow every opportunity for review/study and comment. Although we have received over 2,600 comments out of a possible 5,971, it is possible that some of the non-responding facilities never got the information or did not have adequate time to comment. However, we expect these instances were few in number.

INFORMATION SOURCES AND NOTES

It is important to note that this publication is based primarily on analysis of Medicare hospital billing information for calendar year 1986. While information about beneficiaries, was obtained from the Social Security Administration (SSA), the principal source for the analysis was the HCFA maintained MEDPAR file which contains information about each Medicare hospitalization. Hospitals submit such information to HCFA's fiscal intermediaries (which pay hospitals for the care provided to Medicare beneficiaries). The file is updated quarterly. It is estimated that billing information on approximately 95% of all Medicare discharges is included in the MEDPAR file within 6 months of the close of the calendar year. Accordingly, our analysis was based on information received through June 30, 1987.

In any large scale data base such as one dealing with Medicare hospitalizations, there will be gaps or inaccuracies. The fact that the files contain information on about 10 million hospital admissions to nearly 6,000 hospitals provides some assurance that for purposes of the statistical analysis conducted here, the information which might be missing or inaccurate is such a small portion of the total that it would have almost no impact on the results.

Nonetheless, while we feel that the information used in this analysis is quite thorough and complete, there are a few points which should be kept in mind as the hospital specific information is being reviewed.

- The information used is billing data and is only as good as the information submitted by hospitals as a part of the payment process. Although there is always a possibility that coding errors are included, the assumption is that hospitals do not make errors on billing forms which ultimately affect payment to them. Likewise, it is assumed that given the link to payment, hospitals have an incentive to submit bills promptly.

- The hospitals included in this analysis are short-term, acute care facilities which were identified by their unique provider number. All facilities which have a zero in the third column of their provider number are by definition participating in Medicare as short-term, acute care facilities. All other facilities--those with something other than a zero in the third column of the provider number--were excluded from the analysis. In some cases, hospital names suggest an orientation different from acute care. This does not mean the facility is inappropriately included in the publication.

- There is some information in the file which does not reflect the results of review by Peer Review Organizations (PROs), the entities charged with reviewing hospital services provided to Medicare beneficiaries. For example, one of the functions a PRO performs is to ensure that the diagnosis assigned to a particular case is accurate. The nature of the review and payment system is such that it is possible for PRO changes in diagnosis assignment not to be submitted to HCFA and associated in the MEDPAR file on as timely a basis as other billing information. Obviously, any major changes in diagnosis assignment which are not reflected in the data base would have a bearing on calculation of mortality rates in individual diagnostic categories and may also have a bearing on the extent to which presence or absence of comorbidities has been reflected accurately.

Some hospitals pointed out instances where the hospital's information did not agree with HCFA's, e.g., different date of death, cases of subsequent admission to another facility, or changes in diagnosis codes. The data base used in this analysis has not been revised to reflect these potential discrepancies. Rather we are examining all hospital comments to ensure that changes to our data systems and processes can be made when warranted so that future releases will be even more accurate. Readers are urged to review any hospital comments with a specific view toward these types of issues.

- The predictive model used in this effort does not explain all variability in outcome. Most notably, a measure of severity of illness has not been included in the model, and therefore, the predictive power of the model is less precise than it would be if such a measure had been available. Nonetheless, the information included in this document does legitimately contribute to the body of information about hospital performance.

Massachusetts

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADCARE HOSPITAL OF WORCEST WORCESTER MA 01605	MA-11	139	1	1-11	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
ADDISON GILBERT HOSP GLOUCESTER MA 01930	MA-12	1107	12	10-17	96	36	16-36	50	24	18-44	28	14	6-36	77	26	15-35	36	44	23-54	34	9	9-38	114	21	12-29
AMESBURY HOSP AMESBURY MA 01913	MA-13	547	14	9-18	30	27	18-52	13	31	10-56	10	10	4-53	21	24	10-46	23	48	23-62	19	26	6-43	84	19	12-30
ANNA JACQUES HOSP NEWBURYPORT MA 01950	MA-14	1047	12	10-17	60	30	14-38	48	17	17-43	39	15	7-32	70	21	14-35	42	38	24-54	20	5	5-42	104	17	13-30
ATHOL MEMORIAL HOSP ATHOL MA 01331	MA-15	593	14	10-18	31	45	13-45	33	27	15-46	15	20	4-44	40	30	13-40	31	39	24-58	21	5	6-42	57	21	13-36
ATLANTICARE MEDICAL CENTER LYNN MA 01904	MA-16	1822	14	11-18	126	28	18-37	59	37	18-42	56	18	8-30	97	26	16-33	80	35	27-50	75	23	12-34	227	22	16-30
ATLANTICARE MEDICAL CENTER LYNN MA 01904	MA-17 *	1599	14	10-17	156	31	20-38	50	34	17-43	37	8	6-32	65	29	16-37	62	45	28-53	53	28	10-35	125	24	13-29
BAYSTATE MED CENTER SPRINGFIELD MA 01107	MA-18	4730	15	10-17	462	30	20-34	179	32	21-36	142	23	12-29	249	20	18-30	224	41	31-46	107	24	10-30	389	26	15-27
BERKSHIRE MEDICAL CENTER PITTSFIELD MA 01201	MA-19	2445	12	10-16	236	25	20-36	65	32	18-41	84	12	10-30	85	21	16-35	98	34	29-50	49	24	9-35	168	24	16-31
BETH ISRAEL HOSP BOSTON MA 02215	MA-20	3855	11	12-18	368	19	19-33	145	25	23-39	105	11	12-30	189	14	20-34	196	20	35-51	53	11	9-34	279	21	20-33
BEVERLY HOSP BEVERLY MA 01915	MA-21	1807	14	10-17	143	29	17-35	81	23	18-38	25	20	7-40	91	20	15-33	83	40	29-51	77	23	12-34	209	22	14-28
BON SECOURS HOSP METHUEN MA 01844	MA-22	2197	13	10-17	197	28	18-35	96	25	18-37	41	27	10-37	130	20	16-31	83	36	28-50	49	16	11-37	204	22	14-27
BOSTON CITY HOSP BOSTON MA 02118	MA-23	973	10	8-15	55	20	19-45	36	14	13-42	22	23	9-45	54	13	10-32	35	37	22-54	24	4	4-36	101	15	11-27
BRIGHAM AND WOMAN'S HOSPIT BOSTON MA 02115	MA-24	3093	6	6-13	281	11	13-28	62	19	16-39	55	18	7-30	86	12	15-33	79	27	25-47	37	11	7-35	134	16	15-31
BROCKTON HOSPITAL BROCKTON MA 02402	MA-25	2132	14	12-18	204	26	20-37	81	23	19-40	67	22	13-36	117	21	15-31	98	32	30-51	72	13	12-34	237	24	16-30
BROOKLINE HOSP BROOKLINE MA 02146	MA-26 *	224	6	6-16	14	7	5-48	5	0	5-73	6	33	2-64	15	13	10-53	5	40	9-79	7	0	3-62	14	0	6-48
BURBANK HOSP FITCHBURG MA 01420	MA-27	1217	13	8-15	117	29	16-35	34	21	15-45	22	5	5-38	60	22	15-37	49	43	25-52	11	18	3-50	97	24	11-29
CAPE COD HOSP HYANNIS MA 02601	MA-28	3911	12	10-17	370	21	17-31	212	19	22-36	125	18	10-27	247	19	18-30	205	30	30-46	58	22	10-35	249	20	14-26
CARDINAL CUSHING GEN HOSP BROCKTON MA 02401	MA-29 *	1948	13	11-18	142	18	17-35	103	19	19-38	59	24	12-35	124	23	17-33	98	32	29-50	76	32	14-37	185	22	15-30
CARNEY HOSPITAL BOSTON MA 02124	MA-30	2483	12	10-17	190	31	21-38	95	28	20-39	47	9	8-32	126	23	16-32	113	35	32-52	55	18	9-33	226	17	14-28
CENTRAL HOSP SOMERVILLE MA 02143	MA-31 *	318	6	4-13	1	0	0-98	.	.		4	75	7-81	5	40	5-73	3	33	8-90	4	25	4-77	11	55	8-57
CHARLTON MEM HOSP FALL RIVER MA 02720	MA-32 *	3248	12	9-16	237	25	16-32	123	32	20-37	73	22	10-30	174	22	15-29	213	35	31-47	77	13	7-29	257	15	13-25
CHOATE SYMMES HOSPITALS, I WOBURN MA 01801	MA-33	2555	13	12-18	194	28	21-38	106	25	21-40	70	16	12-34	124	23	17-33	136	28	32-50	113	23	13-33	234	22	16-29
CLINTON HOSP ASSN CLINTON MA 01510	MA-34	393	13	12-21	22	32	12-50	20	25	16-56	5	20	3-70	32	31	15-46	18	28	20-64	22	5	5-40	61	18	13-36
COOLEY DICKINSON HOSP NORTHAMPTON MA 01060	MA-35	1795	12	10-17	172	28	17-34	69	35	20-43	50	10	8-32	94	17	14-32	75	44	28-51	34	12	8-37	197	13	14-28
DANA-FARBER CANCER INST IN BOSTON MA 02115	MA-36	125	28	29-47	118	30	30-51	.	.		1	0	0-99	.	.		.	.		.	.		.	.	

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADCARE HOSPITAL OF WORCEST WORCESTER MA 01605	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
ADDISON GILBERT HOSP GLOUCESTER MA 01930	8	13	3-60	9	22	13-71	25	4	1-26	3	0	0-100	93	3	2-13	47	4	1-18	9	0	0-60	77	4	2-13	51	0	0-14
AMESBURY HOSP AMESBURY MA 01913	3	0	3-83	8	50	12-72	10	0	1-47	5	0	0-100	63	5	2-15	17	18	2-36	4	0	0-100	51	6	1-14	21	5	1-27
ANNA JACQUES HOSP NEWBURYPORT MA 01950	9	56	8-65	11	45	17-71	43	7	3-23	3	0	0-100	82	6	2-14	44	2	1-19	5	0	0-100	82	5	1-12	48	6	0-14
ATHOL MEMORIAL HOSP ATHOL MA 01331	2	0	2-90	3	33	1-81	16	31	2-38	.	.		62	2	1-14	26	0	1-25	12	0	0-99	57	2	1-15	29	3	0-25
ATLANTICARE MEDICAL CENTER LYNN MA 01904	15	20	8-55	20	20	17-58	49	8	2-20	6	0	0-99	160	6	2-10	76	3	3-17	17	0	0-82	148	5	2-10	85	1	0-9
ATLANTICARE MEDICAL CENTER LYNN MA 01904	12	25	6-57	11	18	16-69	39	13	3-25	11	0	0-98	172	3	2-10	81	4	3-17	7	0	0-100	117	8	2-11	94	2	0-8
BAYSTATE MED CENTER SPRINGFIELD MA 01107	45	18	12-46	37	43	22-56	153	10	5-16	54	2	0-20	339	8	3-9	148	5	1-11	29	0	0-57	482	9	3-8	234	2	0-5
BERKSHIRE MEDICAL CENTER PITTSFIELD MA 01201	26	15	10-49	27	37	18-55	48	4	4-23	10	0	0-99	215	7	4-12	113	0	2-13	12	0	0-99	178	6	2-9	196	0	0-5
BETH ISRAEL HOSP BOSTON MA 02215	37	24	10-45	32	50	29-64	118	4	6-19	18	0	0-64	310	5	4-11	211	7	4-14	43	2	0-17	587	6	4-8	149	2	1-8
BEVERLY HOSP BEVERLY MA 01915	19	26	6-49	19	32	14-57	50	8	3-21	4	0	0-100	187	5	3-10	80	3	1-14	16	0	0-90	138	6	2-10	90	1	0-8
BON SECOURS HOSP METHUEN MA 01844	15	40	9-56	28	25	22-59	58	9	3-19	19	0	0-80	201	7	3-10	95	8	2-14	15	0	0-89	171	6	2-9	136	1	1-7
BOSTON CITY HOSP BOSTON MA 02118	11	18	4-55	7	57	9-71	24	29	2-28	2	0	0-100	78	8	2-15	33	3	1-22	10	0	0-100	68	6	1-13	38	0	0-23
BRIGHAM AND WOMAN'S HOSPIT BOSTON MA 02115	31	13	8-44	10	50	16-72	52	13	3-21	25	0	0-37	176	3	3-10	108	6	2-14	62	0	0-16	546	5	3-8	436	0	0-4
BROCKTON HOSPITAL BROCKTON MA 02402	12	17	7-58	26	38	20-58	49	12	3-21	2	0	0-100	198	8	3-11	85	6	4-17	21	0	0-55	136	3	2-10	93	5	0-8
BROOKLINE HOSP BROOKLINE MA 02146	.	.		.	.		3	0	0-83	1	0	0-100	19	11	1-30	16	6	1-35	2	0	0-100	17	6	1-32	32	3	0-20
BURBANK HOSP FITCHBURG MA 01420	16	44	7-53	9	56	15-73	31	6	2-24	16	0	0-98	154	6	2-9	55	2	2-18	12	0	0-100	87	7	2-12	72	3	0-10
CAPE COD HOSP HYANNIS MA 02601	42	24	15-49	37	22	20-53	154	10	6-17	26	0	0-78	373	6	3-9	189	3	1-10	22	0	0-58	446	2	3-7	141	1	0-6
CARDINAL CUSHING GEN HOSP BROCKTON MA 02401	25	52	12-52	11	27	13-66	55	5	4-22	3	0	0-100	134	10	3-12	92	7	2-14	14	0	0-85	156	5	2-9	110	1	0-7
CARNEY HOSPITAL BOSTON MA 02124	20	25	8-50	28	29	22-59	73	5	5-21	12	0	0-81	233	8	3-10	85	2	2-15	5	0	0-100	156	4	2-9	173	0	0-6
CENTRAL HOSP SOMERVILLE MA 02143	.	.		2	50	2-90	.	.		.	.		2	0	0-99	3	0	1-81	.	.		2	0	0-99	.	.	
CHARLTON MEM HOSP FALL RIVER MA 02720	16	25	6-52	56	36	22-50	77	14	3-18	4	0	0-100	318	6	3-9	147	5	2-12	38	0	0-89	297	4	2-8	189	1	0-5
CHOATE SYMMES HOSPITALS, I WOBURN MA 01801	17	53	12-58	38	21	19-52	104	4	5-19	22	0	0-55	220	5	3-10	103	3	2-13	16	0	0-79	159	4	3-10	165	1	0-6
CLINTON HOSP ASSN CLINTON MA 01510	4	75	5-80	9	0	9-66	9	22	2-51	1	0	0-100	29	3	1-22	6	17	0-64	2	0	0-100	39	3	1-18	15	0	1-35
COOLEY DICKINSON HOSP NORTHAMPTON MA 01060	15	20	8-55	20	35	21-63	62	6	5-21	13	0	0-94	169	9	2-10	57	2	2-17	12	0	0-99	131	7	2-10	119	0	0-7
DANA-FARBER CANCER INST IN BOSTON MA 02115	.	.		.	.		.	.		.	.		.	.		.	.		1	0	0-100	.	.		.	.	

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
EMERSON HOSP CONCORD MA 01742	MA-37	1342	11	9-16	106	28	17-37	81	33	19-40	33	15	8-36	80	23	15-35	40	35	28-59	27	11	8-41	76	20	11-30
FAIRLAWN HOSP INC WORCESTER MA 01602	MA-38	393	13	8-17	35	26	10-39	6	33	7-71	9	0	2-52	20	10	9-45	6	33	13-80	22	23	8-44	30	33	11-42
FAIRVIEW HOSPITAL GREAT BARRINGTON MA 01230	MA-39	527	13	10-19	27	30	13-47	16	25	16-60	10	20	7-59	26	8	10-43	18	33	20-63	19	42	8-46	76	20	13-33
FALMOUTH HOSPIAL ASSOCIATI FALMOUTH MA 02540	MA-40	1412	10	10-17	124	19	15-33	71	27	18-40	32	22	8-37	91	20	16-34	53	32	26-53	33	18	11-43	124	23	14-31
FARREN MEM HOSP LAKE PLEASANT MA 01347	MA-41	618	12	9-17	40	40	16-45	19	26	11-49	13	23	6-51	41	12	13-40	26	31	22-59	13	8	6-52	80	18	10-29
FAULKNER HOSP BOSTON MA 02130	MA-42	2187	13	12-19	148	20	17-35	83	22	21-41	76	12	13-34	136	14	18-34	118	49	34-54	46	17	11-39	189	25	17-32
FRAMINGHAM UNION HOSPITAL FRAMINGHAM MA 01701	MA-43	1950	15	10-17	178	29	18-35	84	25	18-38	44	14	9-34	107	21	15-32	93	58	30-52	45	16	9-35	173	27	15-29
FRANKLIN MEDICAL CENTER GREENFIELD MA 01301	MA-44	993	13	9-16	72	25	16-39	42	43	18-47	30	13	6-35	43	28	14-40	62	34	26-51	20	25	5-41	84	15	11-29
GLOVER MEM HOSP NEEDHAM MA 02192	MA-45	858	14	11-18	68	26	16-39	21	29	15-53	23	17	7-42	56	20	14-37	31	42	29-64	44	23	12-40	75	24	14-35
GODDARD MEM HOSP STOUGHTON MA 02072	MA-46	1254	12	10-17	100	29	13-33	60	15	19-43	30	13	7-37	78	23	15-35	72	29	27-51	40	20	7-35	98	16	13-30
HANNEMANN HOSP BRIGHTON MA 02135	MA-47	682	7	5-13	6	33	8-74	4	50	7-81	7	0	1-58	8	25	7-64	1	0	2-98	12	33	5-52	47	30	16-42
HARRINGTON MEM HOSP SOUTHBRIDGE MA 01550	MA-48 *	922	12	9-17	77	19	14-37	36	28	15-45	28	14	7-38	46	30	13-38	38	29	26-57	48	31	7-32	87	21	13-32
HAVERHILL MUN (HALE) HOSPI HAVERHILL MA 01830	MA-49	1565	14	11-18	132	30	18-37	58	26	19-43	35	29	7-34	129	17	17-33	113	49	31-51	32	13	8-39	111	17	12-29
HCHP BOSTON MA 02120	MA-50 *	14	21	2-41	2	50	2-90	.	.		.	.		.	.		1	100	2-98	.	.		2	50	1-89
HENRY HEYWOOD MEM HOSP GARDNER MA 01440	MA-51	1229	13	9-16	90	31	17-38	15	33	10-53	33	15	9-38	74	19	14-34	62	42	26-51	27	7	5-36	129	18	12-28
HILLCREST HOSPITAL PITTSFIELD MA 01201	MA-52	994	11	8-16	58	29	15-40	19	21	13-53	30	17	6-36	48	29	14-39	16	44	17-62	56	13	6-29	128	16	13-29
HOLDEN DISTRICT HOSP HOLDEN MA 01520	MA-53	682	10	9-16	43	35	16-45	21	29	15-53	13	23	4-46	29	28	12-43	24	33	22-60	21	24	6-41	56	11	10-33
HOLYOKE HOSP HOLYOKE MA 01040	MA-54	2024	13	10-16	133	23	15-34	87	33	20-41	50	10	7-30	108	29	16-33	104	36	30-50	62	21	9-32	219	20	14-27
HUBBARD REGIONAL HOSP WEBSTER MA 01570	MA-55	728	15	10-17	38	37	12-41	23	30	15-52	20	15	6-41	57	28	15-38	31	61	26-60	29	17	5-36	71	24	14-35
HUNT MEMORIAL HOSP DANVERS MA 01923	MA-56	961	12	9-16	63	16	13-37	43	30	16-43	25	12	5-36	43	26	15-42	44	43	23-52	35	6	7-36	102	23	12-30
JORDAN HOSPITAL PLYMOUTH MA 02360	MA-57	1756	12	10-17	112	22	14-33	53	32	18-43	57	12	8-30	106	28	15-32	94	31	27-48	53	25	10-35	168	18	15-30
JOSIAH B. THOMAS HOSP PEABODY MA 01960	MA-58	612	10	10-18	40	25	13-42	27	22	14-47	14	36	6-48	52	10	14-37	37	49	26-58	24	13	6-39	44	11	10-35
L.F.QUIGLEY MEM.HOSP SOLDI CHELSEA MA 02150	MA-59	296	9	8-18	27	11	13-47	1	100	0-97	9	11	5-57	13	15	9-55	15	33	20-66	6	17	5-69	22	18	8-42
LAWRENCE GENERAL HOSP LAWRENCE MA 01842	MA-60	2691	12	10-16	168	19	17-34	105	24	19-37	54	28	9-33	179	24	17-31	136	42	30-48	65	25	9-32	230	20	16-29
LAWRENCE MEM HOSP OF MEDFO MEDFORD MA 02155	MA-61	1333	12	10-17	127	33	18-37	46	9	17-44	31	16	6-35	79	25	16-36	74	32	29-53	42	19	9-37	104	13	12-30
LEOMINSTER HOSPITAL, INC LEOMINSTER MA 01453	MA-62	943	12	9-16	55	24	13-38	42	31	16-44	45	9	6-30	54	19	15-38	47	38	23-51	22	14	6-41	84	19	13-32

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
EMERSON HOSP CONCORD MA 01742	6	33	3-68	10	10	9-63	53	8	3-21	33	3	0-44	150	2	2-11	51	6	1-17	15	0	0-98	107	5	2-11	89	1	0-9
FAIRLAWN HOSP INC WORCESTER MA 01602	9	33	11-70	3	100	9-90	11	18	2-45	5	0	0-100	37	0	1-19	28	18	1-24	3	0	0-100	21	5	1-27	19	0	0-52
FAIRVIEW HOSPITAL GREAT BARRINGTON MA 01230	5	0	5-74	9	56	13-71	18	17	3-37	3	0	0-100	61	5	4-19	19	5	1-32	4	0	0-100	46	2	1-16	32	6	0-23
FALMOUTH HOSPIAL ASSOCIATI FALMOUTH MA 02540	13	0	11-62	18	11	15-59	37	5	2-23	6	0	0-99	133	2	2-11	86	1	1-13	9	0	0-97	106	2	2-11	61	5	1-13
FARREN MEM HOSP LAKE PLEASANT MA 01347	4	25	2-77	6	33	8-73	18	6	1-33	4	0	0-100	53	4	1-15	17	6	1-34	7	0	0-100	79	4	1-12	38	3	0-17
FAULKNER HOSP BOSTON MA 02130	18	28	12-57	38	32	24-57	81	5	5-20	13	0	0-93	169	7	3-12	103	8	3-15	15	0	0-89	170	2	3-10	106	2	1-8
FRAMINGHAM UNION HOSPITAL FRAMINGHAM MA 01701	20	40	10-53	16	31	16-61	83	8	3-17	14	0	0-99	185	7	3-11	76	3	1-14	19	0	0-76	157	5	2-10	86	6	0-9
FRANKLIN MEDICAL CENTER GREENFIELD MA 01301	15	20	9-57	3	67	5-86	33	6	2-23	3	0	0-100	105	2	2-11	55	7	1-17	19	0	0-90	65	6	1-13	54	2	0-13
GLOVER MEM HOSP NEEDHAM MA 02192	11	18	8-61	16	56	18-65	32	16	3-26	4	0	0-100	86	2	2-13	29	0	1-24	11	0	0-96	79	5	2-13	50	2	0-14
GODDARD MEM HOSP STOUGHTON MA 02072	20	30	12-55	10	30	12-67	50	4	4-22	3	0	0-100	90	8	2-12	41	7	1-19	15	0	0-98	148	5	2-10	61	0	0-12
HANNEMANN HOSP BRIGHTON MA 02135	5	40	7-78	12	33	16-68	1	100	0-98	125	1	0-7	9	11	0-50	9	0	0-52	.	.		6	0	1-62	4	0	0-98
HARRINGTON MEM HOSP SOUTHBRIDGE MA 01550	11	45	7-60	6	33	7-72	22	0	3-32	8	0	0-99	85	5	2-12	37	5	0-20	6	0	0-100	60	2	1-14	59	0	0-12
HAVERHILL MUN (HALE) HOSPI HAVERHILL MA 01830	10	60	10-65	19	47	17-60	57	2	4-21	4	0	0-100	163	5	3-11	57	9	2-18	18	6	0-97	156	3	3-11	85	4	0-9
HCHP BOSTON MA 02120	.	.		.	.		.	.		.	.		2	0	0-100	.	.		1	0	0-100	2	0	0-99	.	.	
HENRY HEYWOOD MEM HOSP GARDNER MA 01440	8	38	3-61	15	13	14-60	20	10	2-33	13	0	0-79	129	5	2-11	41	2	2-20	13	0	0-94	84	14	2-12	87	1	0-9
HILLCREST HOSPITAL PITTSFIELD MA 01201	11	36	11-65	11	27	18-72	24	0	2-29	13	0	0-98	83	5	2-14	48	10	1-18	7	0	0-100	99	2	2-11	74	1	0-10
HOLDEN DISTRICT HOSP HOLDEN MA 01520	3	0	3-83	7	0	7-69	25	4	3-30	2	0	0-100	63	2	2-16	37	3	1-20	3	0	0-100	75	7	2-13	37	0	0-18
HOLYOKE HOSP HOLYOKE MA 01040	15	40	7-53	18	28	17-61	71	10	5-20	8	0	0-100	235	6	3-9	80	4	1-14	8	0	0-98	162	4	2-9	100	3	0-8
HUBBARD REGIONAL HOSP WEBSTER MA 01570	3	33	2-82	8	25	10-70	13	0	1-40	3	33	0-100	77	6	3-15	39	3	1-21	5	0	0-100	52	4	1-14	39	0	0-17
HUNT MEMORIAL HOSP DANVERS MA 01923	10	20	4-57	5	20	9-79	35	11	3-26	6	0	0-100	103	5	2-13	32	0	1-23	5	0	0-100	61	2	1-14	65	0	0-11
JORDAN HOSPITAL PLYMOUTH MA 02360	11	27	14-69	23	39	21-62	61	8	3-19	25	0	0-76	165	4	2-10	91	5	2-14	20	0	0-81	185	4	2-9	71	0	0-10
JOSIAH B. THOMAS HOSP PEABODY MA 01960	4	25	6-82	8	13	8-67	13	8	1-40	.	.		68	0	2-14	15	7	0-37	.	.		69	3	2-13	23	0	1-25
L.F.QUIGLEY MEM.HOSP SOLDI CHELSEA MA 02150	.	.		1	0	0-97	1	0	0-99	.	.		41	5	1-17	25	4	0-27	.	.		21	5	1-27	2	0	0-100
LAWRENCE GENERAL HOSP LAWRENCE MA 01842	33	21	10-45	13	38	16-66	76	9	4-19	43	0	0-31	265	5	2-9	98	5	2-14	13	0	0-99	208	2	2-8	161	1	0-6
LAWRENCE MEM HOSP OF MEDFO MEDFORD MA 02155	12	25	6-56	8	50	13-73	44	14	3-23	10	10	0-99	138	3	2-11	40	0	1-20	7	0	0-100	104	3	2-11	65	2	0-11
LEOMINSTER HOSPITAL, INC LEOMINSTER MA 01453	10	10	4-58	8	25	12-71	21	10	2-31	14	0	0-98	101	6	2-13	41	5	2-20	13	0	0-76	100	6	2-11	42	0	0-20

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LEONARD MORSE HOSP NATICK MA 01760	MA-63	1525	12	10-17	104	30	17-38	49	20	16-41	34	12	7-34	88	27	16-35	64	34	28-53	80	19	10-32	164	17	15-30
LOWELL GENERAL HOSPITAL LOWELL MA 01854	MA-64	1397	14	11-18	115	24	16-36	56	25	18-43	24	25	6-38	96	22	15-33	86	37	29-51	51	35	10-36	159	23	13-28
LUDLOW HOSPITAL SOCIETY LUDLOW MA 01056	MA-65	491	13	10-18	30	27	15-48	11	27	6-55	10	10	3-51	44	16	13-38	23	39	20-59	17	29	14-58	54	13	11-34
MARLBOROUGH HOSP MARLBOROUGH MA 01752	MA-66	989	15	12-19	75	28	17-40	39	23	17-46	17	35	9-50	57	18	14-37	65	37	29-54	38	29	11-41	97	23	12-30
MARTHAS VINEYARD HOSP OAK BLUFFS MA 02557	MA-67	382	12	9-18	26	46	13-48	15	40	11-55	7	14	1-58	22	23	11-47	15	33	21-68	10	10	2-51	33	9	10-39
MARY A ALLEY HOSP MARBLEHEAD MA 01945	MA-68 *	147	7	5-17	7	71	10-72	2	100	4-92	2	0	0-91	5	0	5-72	4	50	9-84	7	0	3-61	7	14	2-59
MARY AND ARTHUR CLAPHAM HO BURLINGTON MA 01803	MA-69	2062	7	8-14	320	17	19-33	35	14	14-43	51	10	10-34	61	11	14-36	50	32	24-51	29	24	10-43	88	9	11-29
MARY LANE HOSP WARE MA 01082	MA-70 *	491	9	7-15	33	21	9-39	16	38	14-58	12	17	4-49	35	11	10-38	15	20	17-63	15	13	3-43	41	7	8-32
MASS OSTEOPATHIC HOSP. & M BOSTON MA 02130	MA-71 *	181	6	6-17	4	50	3-76	1	0	0-97	1	0	0-97	9	22	6-59	2	0	2-89	15	13	7-50	27	15	12-46
MASSACHUSETTS EYE AND EAR BOSTON MA 02114	MA-72	1960	1	1-8	127	4	10-28	1	0	0-97	.	.		.	.		.	.		5	0	7-76	6	17	3-65
MASSACHUSETTS GENERAL HOSP BOSTON MA 02114	MA-73 *	6742	9	9-15	855	21	20-33	198	20	20-34	151	13	12-29	212	18	17-30	214	35	32-47	54	13	10-35	352	17	14-26
MELROSE-WAKEFIELD HOSP MELROSE MA 02176	MA-74	2134	9	9-15	125	22	16-35	61	31	19-43	42	24	11-39	107	18	15-32	86	26	28-50	43	14	8-35	238	15	14-26
MERCY HOSPITAL SPRINGFIELD MA 01104	MA-75	3242	11	9-16	342	25	17-31	125	27	21-35	75	15	11-32	143	25	16-31	103	28	30-50	65	18	13-37	274	18	14-26
MILFORD WHITINSVILLE REGIO MILFORD MA 01757	MA-76	1480	11	10-16	86	31	16-38	44	25	17-44	36	11	8-35	103	18	16-34	51	41	28-55	56	5	8-32	139	20	15-31
MILTON MEDICAL CENTER MILTON MA 02186	MA-77	1369	13	10-17	97	28	17-37	54	28	18-43	42	24	6-31	88	23	16-35	55	36	26-52	58	19	9-32	102	20	12-30
MORTON HOSPITAL TAUNTON MA 02780	MA-78 *	1520	12	11-18	119	23	17-37	78	24	21-43	30	23	8-38	107	17	16-33	90	43	30-51	28	25	9-42	154	15	14-29
MT AUBURN HOSP CAMBRIDGE MA 02138	MA-79 *	2723	11	10-17	203	25	17-34	92	21	21-41	70	17	12-33	114	18	17-34	160	33	32-49	35	14	10-40	241	22	17-30
NANTUCKET COTTAGE HOSP NANTUCKET MA 02554	MA-80	156	9	6-18	9	22	6-60	3	0	2-81	2	0	0-89	11	9	6-54	6	67	13-79	6	17	1-63	8	0	5-61
NEW ENGLAND BAPTIST HOSP BOSTON MA 02120	MA-81	1635	8	6-12	126	13	16-34	17	18	15-57	27	11	8-39	48	15	14-38	26	15	22-59	22	14	9-46	57	11	11-34
NEW ENGLAND DEACONESS HOSP BOSTON MA 02215	MA-82 *	2870	7	8-14	335	15	19-34	35	9	15-45	36	25	12-41	110	19	18-35	70	34	30-54	33	9	7-37	82	24	13-32
NEW ENGLAND MED CTR HOSP BOSTON MA 02111	MA-83	2067	9	8-15	236	22	20-36	48	17	18-44	30	27	9-40	61	18	13-34	67	40	28-53	16	13	10-53	96	13	13-30
NEW ENGLAND MEM HOSP STONEHAM MA 02180	MA-84	1362	11	10-17	85	22	18-40	44	27	16-43	33	24	12-42	74	22	16-36	51	35	26-54	52	10	10-36	140	15	14-29
NEWTON-WELLESLEY HOSPITAL NEWTON LOWER FALLS MA 02162	MA-85	2427	11	10-17	215	17	17-34	101	22	22-41	55	15	8-31	97	18	16-34	106	47	33-53	40	8	8-36	218	19	16-29
NOBLE HOSPITAL WESTFIELD MA 01085	MA-86	1236	14	10-17	75	27	13-35	45	40	18-46	35	14	7-35	76	28	16-36	55	38	27-53	48	15	11-38	113	32	16-33
NORTH ADAMS REGIONAL HOSP NORTH ADAMS MA 01247	MA-87	1148	14	10-17	99	31	12-32	60	27	19-43	41	15	7-32	80	23	15-35	55	27	25-51	27	7	7-39	101	20	14-32
NORWOOD HOSP NORWOOD MA 02062	MA-88	2152	11	10-16	131	20	16-35	103	18	20-38	57	11	7-29	121	23	16-32	109	44	29-49	80	11	7-28	196	15	14-28

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LEONARD MORSE HOSP NATICK MA 01760	4	0	5-81	15	33	19-67	33	12	3-27	4	25	0-94	128	6	3-12	60	0	1-16	20	0	0-76	132	6	2-11	96	2	1-9
LOWELL GENERAL HOSPITAL LOWELL MA 01854	14	21	13-63	9	22	13-70	39	8	3-24	4	0	0-100	124	6	2-12	80	6	2-15	14	0	0-67	97	4	2-12	56	2	0-12
LUDLOW HOSPITAL SOCIETY LUDLOW MA 01056	3	67	6-88	5	40	8-78	17	6	1-34	.	.		50	4	1-17	25	8	0-28	4	0	0-100	39	8	1-18	19	0	0-32
MARLBOROUGH HOSP MARLBOROUGH MA 01752	5	40	6-76	13	46	18-68	34	12	3-26	.	.		98	8	3-14	42	5	2-22	5	0	0-100	84	6	2-13	17	6	0-33
MARTHAS VINEYARD HOSP OAK BLUFFS MA 02557	3	0	4-85	4	25	6-80	7	0	1-57	.	.		31	3	2-23	23	4	0-30	3	0	0-99	29	7	1-22	29	7	0-21
MARY A ALLEY HOSP MARBLEHEAD MA 01945	.	.		.	.		1	0	0-98	10	0	0-98	11	0	0-45	1	0	0-99	.	.		8	0	0-55	8	0	0-66
MARY AND ARTHUR CLAPHAM HO BURLINGTON MA 01803	11	9	3-54	7	57	18-81	16	13	3-39	10	0	0-99	224	4	3-9	105	1	1-12	31	0	0-24	141	4	2-9	217	1	0-5
MARY LANE HOSP WARE MA 01082	8	38	8-68	1	0	0-97	11	0	1-44	2	0	0-100	43	9	1-17	18	11	0-34	5	0	0-100	60	2	1-13	32	0	0-30
MASS OSTEOPATHIC HOSP. & M BOSTON MA 02130	4	25	2-76	.	.		2	0	1-89	.	.		7	0	0-77	4	0	0-96	2	0	0-100	13	0	0-39	39	0	0-23
MASSACHUSETTS EYE AND EAR BOSTON MA 02114	.	.		.	.		.	.		1477	0	0-1	3	0	0-97	.	.		.	.		4	0	0-84	5	0	0-96
MASSACHUSETTS GENERAL HOSP BOSTON MA 02114	56	25	12-43	21	57	24-66	127	6	4-16	22	5	0-85	572	3	4-9	329	2	1-9	55	0	0-15	799	6	4-8	454	1	1-4
MELROSE-WAKEFIELD HOSP MELROSE MA 02176	18	17	6-49	16	31	16-62	73	12	4-18	8	0	0-99	233	2	3-9	58	3	2-18	20	0	0-30	214	3	2-8	136	1	0-6
MERCY HOSPITAL SPRINGFIELD MA 01104	32	22	10-46	27	30	23-61	87	5	4-17	92	1	0-11	376	5	3-9	160	5	1-11	26	0	0-45	169	9	3-10	195	1	0-5
MILFORD WHITINSVILLE REGIO MILFORD MA 01757	18	39	10-55	20	15	16-58	46	4	3-21	11	0	0-93	117	5	2-12	54	2	1-17	10	0	0-100	153	1	2-10	76	1	0-10
MILTON MEDICAL CENTER MILTON MA 02186	11	64	7-60	16	31	17-63	37	11	2-22	2	0	0-100	143	6	3-12	48	2	2-19	25	0	0-76	97	1	2-11	98	2	0-8
MORTON HOSPITAL TAUNTON MA 02780	5	20	4-74	12	42	17-69	36	17	3-26	4	25	0-100	189	4	3-11	79	4	2-15	15	0	0-99	135	3	2-10	73	3	0-10
MT AUBURN HOSP CAMBRIDGE MA 02138	25	40	10-50	9	11	15-73	63	6	3-20	62	0	0-18	193	4	3-11	114	5	2-14	24	4	0-71	328	3	3-9	158	0	1-7
NANTUCKET COTTAGE HOSP NANTUCKET MA 02554	1	0	0-99	.	.		5	0	0-75	.	.		13	0	1-39	8	0	0-62	.	.		11	0	0-51	11	9	0-72
NEW ENGLAND BAPTIST HOSP BOSTON MA 02120	11	0	2-53	6	67	12-79	27	7	4-31	11	0	0-94	103	4	3-13	31	3	2-24	18	0	0-56	143	6	2-10	441	0	0-4
NEW ENGLAND DEACONESS HOSP BOSTON MA 02215	31	13	6-41	12	25	15-66	19	11	2-33	31	0	0-49	172	6	4-13	50	2	1-17	26	0	0-34	429	5	4-9	77	3	0-10
NEW ENGLAND MED CTR HOSP BOSTON MA 02111	28	4	3-39	10	20	20-77	31	10	3-27	18	6	0-82	124	2	2-12	99	2	1-13	28	0	0-80	370	6	3-9	120	1	0-7
NEW ENGLAND MEM HOSP STONEHAM MA 02180	18	33	15-61	14	0	13-61	41	7	5-26	5	0	0-100	156	6	2-11	44	5	1-19	13	0	0-98	93	1	2-11	82	1	1-10
NEWTON-WELLESLEY HOSPITAL NEWTON LOWER FALLS MA 02162	20	20	9-52	11	45	14-67	100	6	4-18	28	0	0-54	232	9	4-11	89	4	2-15	19	0	0-97	147	3	2-10	184	2	1-6
NOBLE HOSPITAL WESTFIELD MA 01085	8	75	6-65	5	0	8-78	39	3	2-22	1	0	0-100	129	5	2-11	33	6	1-22	5	0	0-100	119	12	2-11	50	4	0-14
NORTH ADAMS REGIONAL HOSP NORTH ADAMS MA 01247	5	60	9-81	13	54	20-71	45	11	3-21	8	0	0-100	115	3	2-11	46	9	2-20	4	0	0-100	89	3	2-12	68	4	0-10
NORWOOD HOSP NORWOOD MA 02062	23	26	14-56	30	17	21-57	52	12	3-21	15	0	0-87	216	4	3-10	51	0	1-17	27	0	0-49	162	4	2-10	131	1	0-7

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PARKWOOD HOSPITAL , INC NEW BEDFORD MA 02745	MA-89	419	10	8-17	8	38	7-65	13	8	10-56	8	13	3-56	24	25	10-44	31	29	22-56	15	20	8-52	52	13	8-31
QUINCY CITY HOSPITAL QUINCY, MA 02169	MA-90	2734	14	11-17	215	33	18-34	127	27	22-39	65	14	9-30	165	21	17-32	109	42	31-51	95	26	12-33	278	23	17-30
SALEM HOSPITAL SALEM MA 01970	MA-91	2817	10	9-15	299	29	18-33	94	17	19-38	84	8	9-28	158	21	16-31	116	38	31-51	68	15	8-30	225	9	13-26
SANCTA MARIA HOSP CAMBRIDGE MA 02138	MA-92	1187	15	12-20	67	37	19-43	40	25	18-47	30	17	7-37	52	15	13-37	63	29	29-54	46	20	9-36	162	31	20-36
SOLDIERS HOME OF HOLYOKE HOLYOKE MA 01040	MA-93	54	17	6-25	7	14	2-60	1	0	2-98	2	0	3-91	2	100	2-90	2	50	2-90	1	0	0-97	7	43	5-64
SOMERVILLE HOSP SOMERVILLE MA 02143	MA-94	1031	14	11-19	69	30	16-39	49	33	19-45	27	19	11-44	81	23	15-34	60	47	29-54	42	14	8-34	97	26	14-33
SOUTH COMMUNITY HOSPITAL WALPOLE MA 02056	MA-95	550	15	11-19	67	33	19-44	7	29	6-66	10	30	5-56	16	31	7-47	17	24	19-63	15	53	14-60	55	15	12-34
SOUTH SHORE HOSP SOUTH WEYMOUTH MA 02190	MA-96	2663	14	11-17	248	22	17-32	131	22	18-35	48	25	11-36	178	24	17-30	141	41	29-47	84	18	10-32	220	22	15-28
ST ANNES HOSP CORPORATION FALL RIVER MA 02722	MA-97	1726	16	12-18	229	33	18-34	80	33	20-41	43	12	7-32	129	18	14-29	99	48	30-51	30	13	9-40	150	17	13-28
ST ELIZABETHS HOSP BRIGHTON MA 02135	MA-98	2295	12	11-18	174	21	20-37	71	10	21-44	45	36	11-37	110	15	17-34	69	52	29-53	56	14	13-39	234	26	20-33
ST JOHNS HOSP LOWELL MA 01852	MA-99	1850	13	10-17	125	31	18-37	67	24	18-40	34	21	7-35	127	24	17-32	75	29	29-53	70	13	11-34	196	19	13-27
ST JOSEPHS HOSP LOWELL MA 01854	MA-100	1213	14	10-17	86	30	18-40	34	41	14-44	33	36	9-38	66	20	14-35	58	40	24-50	40	15	6-32	91	21	12-30
ST LUKES HOSP OF MIDDLEBOR MIDDLEBORO MA 02346	MA-101	656	15	10-17	39	31	14-44	21	29	13-51	20	15	3-37	30	20	12-43	40	35	27-58	15	33	6-48	71	27	13-33
ST LUKES HOSP. OF NEW BEDF NEW BEDFORD MA 02740	MA-102	3903	13	11-17	313	27	17-31	222	24	21-35	112	7	11-29	258	23	18-30	185	37	31-47	170	21	12-30	324	13	14-26
ST MARGARETS HOSP FOR WOME DORCHESTER MA 02122	MA-103	14	0	0-40	2	0	1-89	.	.		.	.		.	.		.	.		.	.		.	.	
ST VINCENT HOSPITAL WORCESTER MA 01604	MA-104	2540	13	10-17	207	28	20-36	109	22	20-38	75	15	9-29	154	23	16-30	103	31	29-50	71	21	11-34	240	22	15-28
STILLMAN INFIRMARY - HARVA CAMBRIDGE MA 02138	MA-105*	34	3	4-27	2	0	0-90	1	0	1-97	3	0	0-85	2	0	1-89	.	.		.	.		8	0	3-57
STURDY MEMORIAL HOSPITAL ATTLEBORO MA 02703	MA-106	1686	12	10-17	112	23	16-35	77	31	20-41	37	14	6-33	107	22	15-32	76	34	29-52	50	24	11-37	127	17	13-29
THE CAMBRIDGE HOSPITAL CAMBRIDGE MA 02138	MA-107	703	13	9-17	41	22	10-38	20	45	12-50	21	10	6-40	41	22	13-39	30	53	23-58	32	19	9-40	76	13	13-34
THE MALDEN HOSPITAL MALDEN MA 02148	MA-108	1382	13	10-17	90	30	18-40	51	22	19-44	44	2	7-32	103	24	15-32	66	38	28-53	53	13	10-35	123	20	12-28
THE NASHOBA COMMUNITY HOSP AYER MA 01432	MA-109	800	14	10-18	59	37	16-40	32	16	16-48	24	21	7-41	18	11	9-47	43	44	27-57	21	19	7-44	70	21	12-33
THE PROVIDENCE HOSPITAL, I HOLYOKE MA 01040	MA-110	1195	12	9-16	110	29	17-37	38	16	15-43	32	19	10-41	51	22	13-37	48	27	24-51	33	15	7-37	124	24	14-30
TOBEY HOSP WAREHAM MA 02571	MA-111	873	13	10-18	51	25	17-44	36	33	16-46	29	21	10-41	81	21	14-33	28	46	24-59	31	13	10-42	96	19	13-31
UNIV OF MASS MEDICAL CENT WORCESTER MA 01605	MA-112	1588	14	10-17	165	29	20-38	33	24	15-46	28	21	9-40	64	28	15-37	100	37	28-48	27	7	12-47	101	17	13-31
UNIVERSITY HOSP BOSTON MA 02118	MA-113	1956	10	9-15	194	22	20-37	44	25	14-41	33	18	7-35	69	16	15-36	77	31	27-50	25	4	6-38	113	19	12-29
WALTHAM HOSP WALTHAM MA 02154	MA-114	1833	9	10-16	123	21	17-37	63	21	17-40	50	12	10-34	91	15	15-34	79	42	29-51	51	22	10-36	172	18	17-32

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PARKWOOD HOSPITAL , INC NEW BEDFORD MA 02745	2	0	0-91	5	0	5-74	7	0	0-61	2	0	0-100	25	8	1-25	10	0	0-52	1	0	0-100	42	0	1-16	12	0	0-75
QUINCY CITY HOSPITAL QUINCY, MA 02169	27	30	12-51	39	13	21-53	103	7	4-17	4	0	0-100	298	4	3-9	127	2	2-12	12	0	0-99	189	4	2-9	105	0	0-8
SALEM HOSPITAL SALEM MA 01970	16	19	3-47	8	38	11-71	77	9	4-19	30	0	0-32	246	5	3-9	110	3	1-12	21	0	0-35	266	3	2-8	182	1	0-5
SANCTA MARIA HOSP CAMBRIDGE MA 02138	7	43	5-66	32	19	23-58	36	17	4-26	7	0	0-100	111	5	2-12	51	16	2-19	7	0	0-100	88	2	2-13	56	5	0-12
SOLDIERS HOME OF HOLYOKE HOLYOKE MA 01040	.	.		.	.		.	.		.	.		8	13	0-64	10	0	0-55	.	.		3	0	0-88	.	.	
SOMERVILLE HOSP SOMERVILLE MA 02143	2	0	0-90	12	25	18-70	30	3	2-25	8	0	0-98	92	3	2-14	43	9	2-21	20	0	0-55	56	4	2-16	59	2	0-12
SOUTH COMMUNITY HOSPITAL WALPOLE MA 02056	3	33	5-87	9	22	11-68	2	0	2-89	.	.		38	11	2-20	6	17	0-65	2	0	0-100	46	2	1-16	15	13	1-35
SOUTH SHORE HOSP SOUTH WEYMOUTH MA 02190	18	39	10-55	25	32	20-59	138	12	4-16	3	0	0-100	263	7	3-10	90	2	1-14	28	0	0-44	230	4	2-8	107	1	0-7
ST ANNES HOSP CORPORATION FALL RIVER MA 02722	19	53	11-55	34	38	25-59	19	5	1-32	1	0	0-100	148	4	2-11	75	0	1-14	6	0	0-97	150	4	2-10	72	3	0-10
ST ELIZABETHS HOSP BRIGHTON MA 02135	17	18	11-57	17	41	18-63	81	4	6-22	9	0	0-95	194	6	4-12	115	10	5-18	17	0	0-81	254	6	4-10	76	4	0-10
ST JOHNS HOSP LOWELL MA 01852	14	43	12-62	24	46	21-60	63	13	4-20	11	9	0-97	183	7	3-11	64	6	1-15	10	0	0-88	143	3	2-10	103	0	0-8
ST JOSEPHS HOSP LOWELL MA 01854	15	27	11-59	16	25	15-61	36	6	2-22	5	0	0-100	135	6	3-13	42	0	1-19	10	0	0-98	90	14	2-12	57	4	0-12
ST LUKES HOSP OF MIDDLEBOR MIDDLEBORO MA 02346	3	0	0-85	11	45	15-68	14	14	1-38	7	0	0-100	61	3	2-15	26	11	0-26	2	0	0-100	57	5	2-15	59	5	0-12
ST LUKES HOSP. OF NEW BEDF NEW BEDFORD MA 02740	28	36	10-48	39	33	22-54	105	12	5-18	4	0	0-100	456	7	4-9	139	1	1-11	22	0	0-84	292	11	3-8	198	2	1-6
ST MARGARETS HOSP FOR WOME DORCHESTER MA 02122	.	.		.	.		1	0	0-100	.	.		.	.		.	.		4	0	0-100		.		.		
ST VINCENT HOSPITAL WORCESTER MA 01604	12	33	7-58	23	30	17-57	69	12	3-19	7	0	0-99	180	4	3-10	125	8	1-12	25	0	0-65	222	5	3-9	126	1	1-7
STILLMAN INFIRMARY - HARVA CAMBRIDGE MA 02138	.	.		.	.		.	.		.	.		3	0	0-95	.	.		.	.		2	0	0-98	1	0	0-100
STURDY MEMORIAL HOSPITAL ATTLEBORO MA 02703	12	17	7-58	9	22	14-71	60	13	4-21	3	0	0-100	208	10	3-10	54	6	2-19	17	0	0-64	125	7	2-11	87	1	0-9
THE CAMBRIDGE HOSPITAL CAMBRIDGE MA 02138	3	33	5-87	1	0	0-97	14	0	2-39	6	0	0-100	49	2	2-18	31	19	1-24	4	0	0-100	65	2	1-14	30	7	0-22
THE MALDEN HOSPITAL MALDEN MA 02148	7	43	8-71	11	36	17-71	29	7	3-28	4	0	0-100	129	3	3-13	40	10	2-21	8	0	0-100	150	9	2-10	81	1	0-9
THE NASHOBA COMMUNITY HOSP AYER MA 01432	5	40	12-83	16	38	17-63	23	13	2-30	.	.		73	3	2-15	37	8	1-20	7	0	0-100	90	6	2-12	43	0	0-15
THE PROVIDENCE HOSPITAL, I HOLYOKE MA 01040	6	50	4-70	2	50	2-90	50	6	3-22	14	7	0-98	97	4	2-13	55	5	2-18	17	6	0-48	74	8	2-13	108	0	0-7
TOBEY HOSP WAREHAM MA 02571	8	38	9-70	4	0	4-78	24	17	3-31	.	.		76	4	2-14	41	2	0-20	7	0	0-100	88	5	2-12	39	0	0-19
UNIV OF MASS. MEDICAL CENT WORCESTER MA 01605	21	29	6-46	10	60	12-66	23	17	2-29	8	0	0-100	92	13	3-15	38	5	1-20	16	0	0-34	318	8	3-8	81	2	0-9
UNIVERSITY HOSP BOSTON MA 02118	24	17	5-44	9	78	9-64	23	0	3-31	42	2	0-31	135	4	3-12	95	1	2-13	9	0	0-76	285	5	3-9	83	2	0-9
WALTHAM HOSP WALTHAM MA 02154	5	20	9-80	18	22	18-62	48	8	3-22	11	0	0-89	171	2	2-10	71	4	1-15	27	0	0-32	133	2	2-11	80	0	0-10

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
WHIDDEN MEMORIAL HOSPITAL EVERETT MA 02149	MA-115*	1642	11	11-18	98	38	22-44	44	32	17-45	46	22	9-34	110	13	16-33	93	32	29-50	67	12	8-30	214	13	13-27
WINCHESTER HOSPITAL WINCHESTER MA 01890	MA-116	1617	10	10-17	147	24	20-39	67	30	20-43	31	10	6-35	58	24	15-38	63	37	27-52	34	15	9-40	119	20	14-30
WING MEMORIAL HOSP PALMER MA 01069	MA-117*	616	9	8-16	51	29	18-45	13	23	9-54	13	0	3-44	33	15	12-41	22	36	21-60	11	9	8-59	40	18	8-33
WINTHROP COMMUNITY HOSP WINTHROP MA 02152	MA-118	767	14	9-17	34	41	13-45	19	26	14-55	25	16	7-39	48	33	13-37	34	29	24-57	33	30	9-40	95	23	14-32
WORCESTER CITY HOSP WORCESTER MA 01610	MA-119*	1227	13	10-17	86	26	16-37	12	58	11-59	35	20	9-37	59	12	14-37	44	50	26-55	32	28	9-39	152	16	15-30
WORCESTER HAHNEMANN HOSPIT WORCESTER MA 01605	MA-120	1472	10	8-15	136	15	14-32	32	22	16-48	35	11	6-33	68	19	16-37	33	33	26-60	46	20	7-33	112	23	15-32
WORCESTER MEMORIAL HOSP WORCESTER MA 01605	MA-121	2462	13	11-18	226	25	21-37	74	23	19-41	72	18	12-34	128	23	17-33	96	32	31-52	47	13	10-37	257	22	17-30

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
WHIDDEN MEMORIAL HOSPITAL EVERETT MA 02149	10	10	5-59	16	25	16-62	42	10	4-25	9	11	0-92	150	7	2-11	65	6	3-18	10	0	0-100	148	4	2-10	90	1	0-9
WINCHESTER HOSPITAL WINCHESTER MA 01890	11	9	11-65	15	20	19-67	45	4	4-24	7	0	0-100	180	6	4-12	60	7	3-18	25	0	0-72	134	3	3-11	101	0	0-8
WING MEMORIAL HOSP PALMER MA 01069	5	20	3-72	3	67	7-88	10	10	1-47	2	0	0-100	94	2	2-13	23	0	1-28	2	0	0-100	68	4	2-13	35	0	0-20
WINTHROP COMMUNITY HOSP WINTHROP MA 02152	7	43	4-66	1	100	2-98	15	7	1-37	3	0	0-100	68	4	1-13	35	11	2-22	5	0	0-100	50	2	1-15	51	0	0-14
WORCESTER CITY HOSP WORCESTER MA 01610	8	25	9-70	14	36	19-68	35	6	3-26	2	0	0-100	109	4	3-13	56	9	3-19	5	0	0-100	79	10	2-13	79	0	0-10
WORCESTER HAHNEMANN HOSPIT WORCESTER MA 01605	16	19	10-56	7	43	10-72	48	10	3-21	14	0	0-98	167	4	3-10	89	3	2-15	13	0	0-99	93	6	1-11	99	1	0-8
WORCESTER MEMORIAL HOSP WORCESTER MA 01605	35	11	9-44	37	46	22-55	70	10	4-20	51	0	0-28	179	8	5-14	113	5	4-16	18	0	0-77	205	3	3-9	116	1	1-8

*Written Comments Not Submitted.

ADCARE HOSPITAL
OF WORCESTER, INC. We Care PREVIOUSLY DOCTORS HOSPITAL

107 Lincoln Street
Worcester, MA 01605
617-799-9000

Providers of 1-800-ALCOHOL,
the nationwide Alcohol &
Drug Information and
Referral Service

October 16, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Agency
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper:

We are in receipt of the Mortality report for the Medicare patient who was discharged from AdCare Hospital days prior to the date of death. I have reviewed this record and find only a discrepancy with the principal diagnosis code you have listed as 303.90. The record reflects a principal code of 303.00.

This patient had been admitted on 12/11/86 with a diagnosis of acute and chronic alcoholism with chronic obstructive lung disease. During his hospitalization he developed symptoms of disorientation. This was investigated and a diagnosis of cerebral atrophy was made. There was concern about his ability to maintain himself in an independent living situation. The patient agreed to a rest home placement and during the course of searching for this placement, his family stated that they wished to take care of finding a rest home themselves. The patient was stable and completed the rehabilitation program, was given prescriptions and was discharged to the custody of his son on 12/30/86.

If you require any further information, please contact me at (617) 799-9000, extension 311.

Sincerely,

Frances LaPrad

Frances A. LaPrad, A.R.T.
Director
Medical Records, Quality Assurance

FAL/cs

Addison Gilbert Hospital

298 Washington Street, Gloucester, MA 01930 (617) 283-4000

October 27, 1987

Health Standards and Quality Hospital Mortality Information
P.O. Box 6684
Baltimore, MD 21207

RE: Comments on Hospital Mortality Rates

Gentlemen:

The Medical Staff and Administration of the Addison Gilbert Hospital anticipated the mortality figures for hospitalized Medicare beneficiaries as released by the Health Care Financing Administration.

The figures indicate that the mortality rates are within the predicted range for this hospital in all of the diagnostic categories used. These rates are a reflection of the overall high quality of care maintained by the physicians and health care personnel at this hospital, and of the quality assurance program in place to monitor and comment on that care.

Sincerely,

T. A. Scharfenstein
President

AMESBURY*
HOSPITAL

Robert Ponticelli
Administrator

617-388-5060

24 Morrill Place, Amesbury, MA. 01913

TO: Health Care Financing Administration

FROM: Patricia Crosby, Assistant Administrator

DATE: October 27, 1987

We are responding to mortality data sent from HCFA in September. The survey indicates, within the 16 diagnostic categories your agency reviewed, 547 Medicare recipients were admitted to Amesbury Hospital and 75 of those have died. We have carefully examined the data you sent and found them to be correct, except in two instances. Enclosed is a copy of your data sheets with the corrected errors.

Your analysis provided a range of predicted mortality rates and indicated where our actual rates are within those ranges. While pleased that Amesbury Hospital percentages were all below the expected HCFA ranges, we are alarmed with the potential use of this type of data as a measure of quality. The general public might easily misinterpret the data.

Consumers may not realized HCFA's mortality are not a refined measure of quality. They may compare death rates among various institutions and draw some incorrect conclusions. The HCFA model does not account for many factors beyond the hospital's control which affect patient outcomes and hospital performance. They will not know that patients with terminal cancer died irrespective of the setting, nor will they know, from the data, that some causes of death were unpreventable.

Amesbury Hospital strives to ensure high standards of health care delivery. Organized efforts, such as medical staff review of deaths and complications, quality assurance and variance reporting systems are all part of our attempt to maintain our standards. We hope HCFA will continue to refine their models and systems so that hospitals and the government can work in concert for the greater benefit of the public.

*we care more

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Anna Jaques Hospital
of Newburyport
25 Highland Avenue • Newburyport, MA 01950 • (617) 462-6600

Reaching out to serve you

October 26, 1987

William L. Roper, M.D., Administrator
Department of Health & Human Services
Health Care Financing Administration
6325 Security Boulevard
Baltimore, Maryland 20207

Dear Dr. Roper:

We have reviewed the material from HCFA concerning the 1986 Medicare Mortality information and welcome the opportunity to comment. We feel that it is important that the public have better methods of evaluating our hospital's quality of care, since mortality rates alone do not measure quality. Although the Anna Jaques Hospital's Medicare mortality rates for 1986 are either within or below the predicted range, we do not feel that this reflects the high quality of care we provide. Mortality data is little more than a screening tool for focusing medical peer review.

We have reviewed the 128 cases cited by HCFA which include the last hospital admission in 1986 for all Medicare beneficiaries, including those Medicare patients who died within 30 days of that admission. Twenty-two of these cases (18%) died after discharge from the hospital and sixty-six patients (52%) were 80 years of age or older. All Medicare deaths within the hospital were reviewed and in most cases were discussed in detail either in the Department of Medicine and Family Practice or the Department of Surgery. We were unable to document instances in which the quality of care rendered by the physician was considered inappropriate or even questionable by his or her peers.

We are still in the process of evaluating the data on the twenty-two (22) patients who expired after discharge. We will continue to obtain corroborative information from the attending physicians. In many instances the information is in error, since we have found the physician of record was often not the actual attending physician at discharge.

The 1986 Medicare Mortality Data fail to take into account true severity of illness, hospital management, status of the patient on admission or discharge, complete co-morbidities, terminal illnesses, cause of death (often unrelated to the principal diagnosis), DNR orders, patient mix and results of peer review; and consequently does not reflect quality.



Quality of care is a prime concern of Anna Jaques Hospital's Governing Body, Administration and Medical Staff. We have implemented a process to assure that patient care is maintained at an optimal achievable level on an ongoing basis through our Quality Assurance, Risk Management, Peer Review and Utilization Review activities. We are proud that our Quality Assurance and Risk Management Programs have been cited as models in Massachusetts.

We monitor hospital-wide activities on a concurrent and retrospective basis. Any patterns or trends that are identified as potential quality issues lead to a prompt investigation to determine if a problem actually exists. Whenever quality problems are identified, corrective action is taken quickly. All major incidents are referred immediately to the Department Chief and involved physician and are followed up by the Quality Review Board, Medical Staff Executive Committee and Board of Trustees. This is also integrated into our Continuing Medical Education program on a departmental as well as hospital level.

I, personally, investigate and respond in writing to any quality concerns raised by patients or their families. This has proven to have a significant educational value and has contributed to the quality of care.

Anna Jaques Hospital is committed to providing services that address the needs of our senior population. Because seniors represented 13% (7,238 persons in 1985) of our service area population, we have developed the position: Manager of Senior Services and Program Development to foster the development of a Senior Services Program. To date Senior Services at Anna Jaques Hospital offers area seniors: Senior Suppers, Meals on Wheels, Medicare Information Service, OverNight Respite Care Unit and a Personal Emergency Response System. Anna Jaques Hospital will continue to develop other programs that enhance the quality of life of this growing segment of our population.

The American Hospital Association, Joint Commission on Accreditation of Health Care Facilities and the Massachusetts Board of Registration in Medicine are all investigating methods of evaluating hospital quality of care by measures which rely on factors other than mortality rates. We look forward to the results of these efforts.

I want to thank you for giving us the opportunity to respond to the HCFA report and look forward to working together to ensure quality of care to all of the patients we serve.

Sincerely,

Allan L. DesRosiers
President

ALD/sr

Athol Memorial Hospital

a subsidiary of Greater Quabbin
Health System, Inc.

2033 Main Street
Athol, Massachusetts 01331
(617) 249-3511

October 28, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Gentlemen:

During the month of December, the Health Care Financing Administration (HCFA) will publish hospital specific mortality data for all hospitals. The data compares projected mortality rates to actual mortality rates for Medicare patients who died within 30 days of admission to the hospital.

The data compiled by HCFA indicates that a total of 593 Medicare patients were admitted to Athol Memorial Hospital. The data further illustrates that 84 patients died within 30 days of admission. Of these, 72 died while still hospitalized, while 12 died after discharge.

Our own records indicate that 1,139 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries.

Review of our own records based on HCFA data, indicates that 74 Medicare patients died within 30 days admission while still an inpatient. Ten died after discharnge, 4 of which returned to nursing home facilities and 4 were followed by Visiting Nurse Associations at the time of discharge. Information concerning death after discharge is not included in the patients medical record.

In the absence of detailed information concerning the billing data available to HCFA in computing predicted mortality rates, it is impossible to verify the accuracy of the diagnostic or other data used in this analysis.

In all of the diagnostic categories reviewed, Athol Memorial Hospital's actual mortality rate falls within the range of the predicted mortality rate. The highest actual rate was noted to be the Diagnostic Category - Cancer. Cases reflect Oncology Clinic and/or visiting nurses services support with subsequent admission for terminal care. The Oncology Clinic is a relatively new service to our hospital and his been met with a tremendous outpouring of support from out patients.

An Affiliate of HCA Hospital Corporation of America

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

The one essential shortcoming of the mortality data is that the death rates don't adequately account for severity of illness which we believe is a prerequisite to meaningful mortality statistics. In the absence of realistic severity of illness measures, it is difficult for hospitals to demonstrate that the difference between projected and actual mortality data may not have to do with quality, but with having sicker patients.

At Athol Memorial Hospital we do not, and will not tolerate less than adequate patient care.

Over the past few years, we have seen a dramatic shift in the age and acuity of our patients. Many of our patients come to us with a variety of multiple medical conditions.

We at Athol Memorial Hospital realize that the unique character of our communites dictate that health care programs and services be shaped at the local level. We are committed to fulfilling our role as a valuable community resource.

Sincerely,

William J. DiFederico
President

WJD/na

AtlantiCare

AtlantiCare Medical Center

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Gentlemen:

AtlantiCare Medical Center is an acute care hospital in Lynn, Massachusetts which has two campuses, a 210-bed acute care facility with psychiatric services at the Lynnfield Street site (LSC) and a 301-bed full-service (with obstetrics) acute care facility at the Boston Street site (BSC).

Combined, AtlantiCare serves a high percentage of Medicare patients. In fiscal year 1986, 42% of the patients served by AtlantiCare were Medicare. Of the top three clinical groups reviewed, AtlantiCare realized greater than a third of the primary service area market share, again recognizing the care level of these services the community depends on: Cardiology, 34% of market share; Oncology, 36% of market share; Pulmonary, 40% of market share. Furthermore, AtlantiCare maintains the status of the Regional Trauma Center with a full-service 24-hour response system.

The community population within the service area reflects an 18% Medicare group compared with the relatively high statewide Medicare population of 16%.

AtlantiCare is responding to the fiscal year 1986 mortality data released by the Health Care Finance Administration. The purpose of this response is to show that AtlantiCare is well within the range of expected mortality for the disease entities identified by HCFA. The "range of predicted mortality rates" gives an estimate of mortality rates expected for patients equal in number and similar in characteristics to those treated by the hospital.

The patient characteristics used in the analysis include the age and sex of the patient, the number of prior hospitalizations within the year, whether the patient was transferred from another hospital and whether the patient has other complicating illnesses.

500 Lynnfield Street
Lynn, Massachusetts 01904
617-581-9200

Of the 359 cases presented, a random sample of 194 (60%) were reviewed internally in order to validate the data used in the "report". The average age of the mortality cases presented was 76 for AtlantiCare Medical Center (BSC) and 79 for AtlantiCare Medical Center (LSC). Although the data was presented by individual campus, both campuses make up one medical center with one combined medical staff. Of the 194 cases reviewed, 5 were under the age of 65. All 5 cases were recipients of Medicare disability, were chronically ill and had multiple complications.

The patient characteristics of the cases chosen for the sample has not been proven to be the valid indicators for predicting mortality. Fifty-six percent (56%) of the sampled cases were patients whose deaths were the expected outcome at the time of admission to the hospital. Resuscitation would have prolonged their suffering and therefore, their families requested a "Do Not Resuscitate" order. Supportive care and comfort was provided to these patients until they expired.

It was noted that the HCFA data on post-hospital deaths was not totally accurate. The "report" indicated 53 cases of post-hospital deaths when there were actually 45. Six patients identified as dying the day after discharge from the hospital were critically ill patients who expired in the hospital setting and were not actually discharged. Two patients listed by HCFA as dying in the hospital were actually discharged alive on the date noted.

An example of a case where the death was deemed to be caused from"gastrointestinal disease" by HCFA, was a more complicated situation that of an 84 year old patient with congestive heart failure, rheumatic heart disease, and mitral stenosis who suffered a cardiac arrest and expired.

A second patient's death, which was attributed to gastrointestinal disease, was suffering from multiple organ failure and an infarction of the intestine was the immediate cause of death.

Out of the 359 cases, 22% of the deaths were caused by cancer or patients who were treated in the Oncology Unit. The AtlantiCare Medical Center's cancer program is fully accredited by the American College of Surgeons and fulfills the College's requirements as a community hospital comprehensive cancer program Another 22% of the total cases suffered from pulmonary disease. It is important to note that these patients were end stage lung disease patients and suffered from such conditions as emphysema and chronic obstructive pulmonary disease. In the hospital's chart review, there was every indication of appropriate care.

Chart review indicated that in all cases, the medical and nursing care provided to the patients were found to be of the highest quality. All deaths were expected or unpreventable due to the significant comorbidity factors.

Very truly yours,

Bernard A. Mulhall
President

BAM/plw

BAYSTATE MEDICAL CENTER
SPRINGFIELD, MASSACHUSETTS 01199 (413) 784 0000

October 28, 1987

CONFIDENTIAL

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
G20 East High Rise Building
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Doctor Roper:

I would like to comment on Health Care Financing Administration (HCFA) mortality information released on September 21, 1987 for Baystate Medical Center (Medicare Provider No. 220077). Upon reviewing the information for Baystate Medical Center our review focused on the one diagnostic category, low-risk heart disease, that has been identified as exceeding the HCFA range of predicted mortality rates. Our findings which came after a thorough review on the part of our Medical Staff and medical records personnel identify several errors in the information released which, when corrected, significantly alters our mortality statistics for low risk heart disease.

Specifically, there were six (6) errors identified in medical records coding for the principal diagnosis code for low risk heart disease patients.

These errors and their corrected principal diagnosis and corrected diagnostic category can be summarized as follows.

	Patient ID Number (HIC)	Surname (1st 6 Ltrs)	Date of Discharge	Original Principal Diagnosis		Corrected Principal Diagnosis
1.	[redacted]	[redacted]	3/14/87	427.9	to	427.1
	- changes diagnostic classification to severe acute heart disease					
2.	[redacted]	[redacted]	6/9/86	411.1	to	410.9
	- changes diagnostic classification to severe acute heart disease					
3.	[redacted]	[redacted]	7/24/86	411.1	to	410.9
	- changes diagnostic classification to severe acute heart disease					
4.	[redacted]	[redacted]	1/22/86	411.1	to	428.0
	- changes diagnostic classification to severe chronic heart disease					
5.	[redacted]	[redacted]	9/3/86	411.0	to	410.0
	- changes diagnostic classification to severe acute heart disease					
6.	[redacted]	[redacted]	12/8/86	413.9	to	410.9
	-changes diagnostic classification to severe acute heart disease					

In the first two cases, our medical records department had previously submitted corrections to substantiate a different principal diagnosis than initially submitted but apparently HCFA based their statistics on intitial not final corrected hospital billing information. The third patient had acute myocardial infarction, but the data corroborating this were apparently not available at the time of initial coding. This error in coding was only identified during our review of HCFA's data. The fourth patient was admitted with pulmonary edema, but sent in with an initial primary diagnosis code of unstable angina. This patient should have been coded as congestive heart failure. The fifth and sixth patients had been transferred to Baystate Medical Center because of acute myocardial infarction which had been coded as the secondary diagnosis in both cases. Upon subsequent review of these two cases we identified an error in sequencing of diagnoses and feel that acute myocardial infarction should have been listed as the principal diagnoses.

These six (6) changes cause Baystate's actual mortality rate for low risk heart disease to decrease from 9% to 7.6% which is within HCFA's range of predicted mortality rates of 3 to 8%. Obviously our concern is that these errors should be corrected to more accurately reflect our actual mortality rate for the category of low risk heart disease.

It is such errors as these which indicate the need to review quality through the process of peer review in which information contained in a patient's record is reviewed. Statistical comparisons should be used principally by hospitals to identify or suggest areas for review to determine if a quality problem does exist or if the patients treated by the hospital are simply unusually complex or have other characteristics not recognized by the HCFA model that would lead to an above average mortality rate.

At Baystate Medical Center, a regional referral center for Western Massachusetts, we have a strong commitment to the provision of high quality medical care. This commitment is underscored through our extensive Quality Assessment programs which involve every profession and department within our Medical Center. Our Medical Staff Quality Assessment program maintains ongoing departmental mortality review and other important clinical review of medical care. As a regional referral center it is our commitment to maintain the highest standards of care in a manner that is responsive to the needs of our community and patients.

Sincerely,

Clifford M. Eldredge
Executive Vice President & Chief Executive Officer
Baystate Medical Center

CME:kmp

Comments on HCFA Medicare Mortality Study

at Berkshire Medical Center

At Berkshire Medical Center, quality assurance is a hospital wide effort and comprises a number of parameters which work together to define quality of care. They include measures of outcome (morbidity and mortality), process (assessments, procedures, tests, consultations), patient perception (patient and family comments and complaints), cost (cost per case, appropriateness of hospitalization, cost-effectiveness of therapy), and environmental factors (facility, organization, and skill level of staff). There are regular mechanisms for gathering, reviewing and analyzing information about each of these parameters, as well as mechanisms for identifying problems, resolving issues and initiating corrective action at Berkshire Medical Center. We are constantly striving not only to measure, but to ensure quality of care.

The mortality study of the Health Care Finance Administration focused only on mortality, the most measurable of these indicators of quality. Specifically, the HCFA study presents mortality statistics on patients treated at Berkshire Medical Center in 1986. The statistics present the last admission in 1986 of Medicare patients admitted to BMC, the actual percent of those patients who died in the hospital or within 30 days of discharge, and the predicted range of expected mortality given adjustments for patient mix. Berkshire Medical Center's actual rate of 12% is comfortably within the predicted rates of 10-16%. We believe that the operating quality assurance mechanisms we have contributed to the favorable statistics for BMC.

The HCFA study was not a study of the general population, but of a specific subgroup, namely the Medicare population, a group which is 65 years or older or permanently disabled. The average age of patients who died in this study was 78 years, which compares to an average life expectancy of 71.0 years for men and 78.1 for women. Secondly, patients were in the hospital because they were seriously ill. The study group consisted only of the last admission of each Medicare patient in 1986, or 2445 Medicare patients. There were a total of 3950 Medicare admissions in 1986. Therefore, because of their poor health, the majority of patients in the study had multiple admissions, particularly those with such diagnoses as cancer, chronic obstructive pulmonary disease and congestive heart failure. On average Medicare patients hospitalized at BMC in 1986 had 1.6 hospitalizations during that year.

The records of a subgroup (36) of the patients who died, namely those reported by HCFA to have died after discharge but within 30 days of discharge, were analyzed in depth in order to assess the accuracy of the HCFA report, to determine if these patients

were markedly different from other Medicare patients and to review the appropriateness of discharge planning.

Four of the patients (14%) were inaccurately reported to have died after discharge; three died at BMC (HCFA had an incorrect date of death for two and incorrect date of last hospital admission in 1986 for another), and one was transferred to the University of Massachusetts Medical Center where he expired two days after transfer. Of the remaining patients who were admitted to BMC and died subsequent to discharge, 47% had metastatic or terminal cancer and 36% had chronic obstructive pulmonary disease and/or congestive heart failure (several of whom had further complications of uncontrolled diabetes or renal insufficiency). There were no obvious differences in patient characteristics between the group that died in the hospital and the group that died elsewhere within 30 days of discharge. The average age of either group was 78 years.

In 90% of cases plans were made for postdischarge care, including return to nursing home or nursing home admission, VNA services, family care, return for chemotherapy or transfer to another facility. In about 10% of cases no special plans were made or necessary, or the family had been approached but had not made a decision about VNA services or nursing home at the time of discharge. Numerous records indicate that the patient was "preterminal," that the family had requested no heroic measures, or that they had requested discharge to home so they could care for their family member in the setting they preferred.

Only one patient, whose only health problem noted in the medical record was alcoholism, was admitted for a routine elective procedure and discharged in good condition with no indication of possible sequelae. This patient was a summer resident who returned to his primary residence soon after discharge and then died 28 days after leaving the hospital. It is not possible to verify the circumstances of the death, but the patient may have had another admission to an out-of-state hospital prior to death or died from circumstances unrelated to the hospitalization at BMC.

Berkshire Medical Center management is satisfied that the HCFA data is relatively accurate (14% error rate in the sample studied) and that the mortality study measures an important aspect of quality of care, but that it is insufficient as an overall indicator of quality of hospital care. Our own study in greater depth assures us that the patients admitted to BMC were cared for properly during their hospital stay, that appropriate discharge planning occurred, and that the deaths were both anticipated and due to the normal progression of disease and process of aging.

October 22, 1987

MM:je
36-76

Beth Israel Hospital

330 Brookline Avenue
Boston, MA 02215

(617) 735-2000

A major teaching hospital of
Harvard Medical School

A constituent agency of
Combined Jewish Philanthropies

Mitchell T. Rabkin, MD
President

COMMENTS ON THE HCFA MORTALITY DATA
BETH ISRAEL HOSPITAL, BOSTON, MASSACHUSETTS
ID NUMBER = 220086

Boston's Beth Israel Hospital offers the following comments in response to the mortality data recently furnished to the Hospital for 1986.

Quality health care is the single most important priority of Beth Israel Hospital. We recognize the need for consumers of health care to differentiate high quality health care from lower quality health care. At the same time, however, we recognize the difficulty of easily quantifying measurements of quality.

Our review of the mortality data provided by the Health Care Financing Administration (HCFA) for Beth Israel Hospital indicates specific problems of accuracy, and we are concerned that inappropriate conclusions could be drawn from raw, untested data without study of contextual factors, such as general health status, severity of illness or social status.

The data furnished to the Hospital indicated that a total of 408 Medicare patients died within thirty days of admission during 1986. Of these 408 patients, 80 died after discharge, while 328 died in the Hospital, according to the HCFA data. We reviewed these data by comparing the HCFA data to our Hospital specific data base. Individual chart review was conducted and we spoke with physicians regarding their patients that died following discharge. The results of the review show that, of the 408 patients studied, 335 deaths occurred while patients were in the Hospital and 72 deaths occurred after discharge. One patient expired in another hospital from a condition unrelated to the Beth Israel Hospital admission. Our review of the individual cases further reveals that these 72 discharged patients were in the final stages of acute or chronic illnesses, and that death was not unexpected.

We wish to comment specifically on the category "SEPSIS." "SEPSIS" includes two major groups:

(1) patients with another primary disease, often terminal and beyond any further treatment, who return to the hospital for the final time, typically with infection as the complication to which they finally succumb. While such patients are typically those with widespread cancer or immunologic disorders as their primary disease, the final primary diagnosis in this circumstance tends to be "SEPSIS."

(2) patients otherwise well with overwhelming infection as their primary diagnosis.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

HCFA reports us as having a 50% mortality rate for SEPSIS, or 16 of 32 cases in DRG 416, sepsis. 75% or more of our cases fall into the first group, where high mortality is to be expected. Only by separating this category into the two subgroups would useful data on the second (largely treatable) group be made available.

Beyond the inaccuracies in the HCFA database described above, it is not possible to validate the data used in the study without more specific information regarding the population used to compute the HCFA mortality rates. Thus, the conclusions that HCFA draws as to normal or expected frequencies of a particular outcome cannot be verified from the data given. We remain concerned about conclusions drawn from raw data without review of the underlying case histories.

Boston's Beth Israel Hospital remains committed to providing high quality health care to its patients. Review of mortality data is an important component of the hospital-wide, comprehensive quality assurance program at Beth Israel Hospital. The goal of our quality assurance program is to assure the delivery of optimal patient care by establishing ongoing monitoring and evaluation mechanisms designed to identify and resolve problems in patient care and clinical performance. Clinical departments review unexpected deaths in addition to other clinical indicators of care. As part of the mortality review, cases are analyzed to determine if appropriate standards of care are followed. In cases where problems are identified, appropriate corrective action is taken. We believe that these review processes ensure that our patients will continue to receive the high quality care they expect and deserve.



Mitchell T. Rabkin ,M.D.
President
Beth Israel Hospital

CORRECTIONS TO HCFA MORTALITY DATA
BETH ISRAEL HOSPITAL, BOSTON, MASSACHUSETTS

All highlighted patients on the attached printout expired while in the hospital with the exception of [redacted]. [redacted] was discharged alive and later admitted to another hospital where her death was the result of an illness unrelated to her Beth Israel Hospital admission.



BEVERLY HOSPITAL

More than a Hospital...a Family Centered Health Care System.

October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Department Health and Human Services
Room 309G, Hubert H. Humphrey Building
200 Independence Avenue, SW
Washington, DC

Attention: Comments on 1986 Mortality Information for
Beverly Hospital, Beverly, Massachusetts
Medicare Provider No. 220033

Dear Dr. Roper:

The purpose of this letter is to comment on the pending release of hospital specific mortality data by HCFA and to review the data which was sent to Beverly Hospital. It is our belief that hospitals strive to improve the quality of medical care delivered to all patients continuously. Objective measurement, analysis and dissemination of information about quality performance is the key to internal quality assurance programs. The release of medical outcome data to the public must be done in a manner which provides the public with accurate, understandable data to assist in consumer decision making. To that end, we have previewed the mortality data and wish to add the following comments.

INTRODUCTION

Beverly Hospital's mortality rates, as presented in the model, are all well within the expected HCFA ranges. The attached response is written to provide HCFA with information concerning the accuracy of the data, comments regarding the formula used, and to inform the public concerning important omissions from the data. The formula for the expected ranges and the cases included in the data are a result of a model devised by HCFA and do not reflect mortality review as we know it. It is important to note that at least seven errors in the data were found after a random sample of cases was checked.

The data used by HCFA indicate of the total of 1807 Medicare patients admitted to Beverly Hospital, 14% died within 30 days of their last admission. Of these, 216 died while still a patient in the hospital, while 38 died after discharge. Our own records indicate that 2823 Medicare discharges occurred in 1986, with an overall mortality rate of 9.1%. It is important to point out that Beverly has a very active renal dialysis program, which inherently has complications which disproportionally contribute to mortality.

The discrepancy reflects a number of factors - multiple admission of individual beneficiaries to our institution are not counted in the HCFA data, all diagnoses included in our review, and the rate is based only on the inclusion of deaths which occurred in the hospital. Upon a review of the patient data listing provided to us, we find a total of 246 patients listed, 213 (86%) who expired in the hospital and 33 (14%) patients listed who expired after discharge from the hospital. It is impossible to determine the accuracy of the data presented on the 33 patients who expired after discharge, as information concerning death after discharge is not included in the release. Data collection for this group of patients focused on the disposition at the time of discharge and the time lapse between discharge and the date of death, as recorded in the HCFA data.

It is also important to note that without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

INTERPRETATIVE REMARKS

Beverly Hospital's mortality rate falls with the range of the predicted mortality rates in all of the selected diagnostic categories. After a review of the data, there are several data elements which should be included to obtain a more complete view of the mortality rates. A review of a sample of records which covered eleven of the sixteen diagnostic groups revealed that 34% of those deaths recorded in the listing expired in less than 48 hours after admission to the hospital. Record review of the cases showed that 30% of the cases contained Do Not Resuscitate orders. Sixty-four percent of the cases screened had prior hospitalizations at Beverly Hospital within the year preceding the admission listed in the HCFA data. The average age for all diagnostic groups, except renal dialysis and sepsis was $\geq$ 75, with eight categories $\geq$ 80 years old. Beverly serves an elderly Medicare population with many of the admissions coming from nursing homes or elderly housing. A review of the cases showed that 20% of those patients who

expired in the hospital were transfers from an extended care facility.

The HCFA data also included cases who expired after an admission to the hospital, but did not expire in the hospital - 13% of the total number of cases. A review of a sample of these cases shows that the average time out of the hospital before the patient expired was 13 days.

CONCLUSION

Beverly Hospital maintains a strong effort in the area of quality review and improvement. Our ongoing quality assurance program provides for the review of all mortalities by peers. The data derived from this review is used in the ongoing reappointment process and in educational programs. Studies are created and performed based on the findings of both concurrent, as well as retrospective quality review, including, but not limited to mortality review. Standards for medical care are ensured through multiple review mechanisms which have been in place in this hospital for years.

Should you have any questions on our response to the HCFA mortality report, please do not hesitate to contact me.

Very truly yours,

Robert R. Fanning, Jr.
President

cc: Frederick Kauders
Chairman, Board of Trustees

Walter B. Clayton, M.D.
President, Medical Staff

BON SECOURS HOSPITAL

October 27, 1987

William L. Roper, M.D.
Health Care Financing Administration
Department of Health & Human Services
Office of the Administrator
Washington, D.C. 20201

Dear Dr. Roper:

Enclosed please find Bon Secours Hospital's response to the Health Care Financing Administration.

If you have any questions about this response please let me know.

Regards,

William L. Lane
President/Chief Executive Officer

WLL/er

Member hospital, Caritas Christi, a Catholic health care system
70 East Street, Methuen, Massachusetts 01844 617/687-0151

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.



BON SECOURS HOSPITAL

BON SECOURS HOSPITAL RESPONSE
TO THE HCFA SELECTED MORTALITY INFORMATION

In the interest of the hospital's commitment to quality care, Bon Secours Hospital has reviewed the HCFA mortality rate data. Bon Secours Hospital mortality rates for the diagnostic categories studied, fell within the predicted ranges as developed by HCFA.

After careful review, we found discrepencies in the HCFA data. First, the HCFA data showed 296 Medicare deaths attributable to Bon Secours. Our records show 295 deaths fell within the criteria establised by HCFA. One additional patient whose death was charged to Bon Secours Hospital statistics was acutally transferred to another acute care hospital. The data used by HCFA indicates that a total of 31 medicare patients admitted to Bon Secours Hospital died following discharge. Our data indicates only 26 died following discharge. Fourteen of those patients were transferred to nursing homes as their condition at the time did not warrant continued acute hospitalization. Nursing home placement provided the appropriate level of care to these patients. Many of the nursing home and ambulatory discharges were patients whose disease process was known to be terminal in nature. Most of those patients who were homebound and/or their families requested that they be released to hospice or visiting nurse care through discharge planning even though their deaths were predictable due to the nature of their illness. Many simply desired to be at home with no further heroic measures.

It should be noted this HCFA study does not address the severity of illness within the diagnostic categories being reported. With this in mind, it must further be said, that Bon Secours Hospital serves as a regional cancer referral center and admits the more acutely ill patient from other hospitals for both diagnostic and acute care management services. In addition, and due to the same circumstances, Bon Secours Hospital also treats a higher incidence of the more at risk neurologic and neurosurgical patients than most other comparable community hospitals.

The HCFA data catagories are based on the condition causing admission and do not necessarily reflect the actual cause of death. For instance, patients whose cause of death is cancer are often admitted with a condition in another diagnostic category.

Member hospital, Caritas Christi, a Catholic health care system
70 East Street, Methuen, Massachusetts 01844 617/687-0151

Bon Secours Hospital has an active Quality Assurance program which represents the best clinical interests of all patients regardless of age. The Quality Assurance program, under the direction of the medical staff, encompasses a multi-disciplinary team approach. The stated purpose of the Quality Assurance Program is:

> To create a coordinated and integrated quality assurance program, designed to use staff time and resources appropriately; to enhance patient care through the ongoing assessment of important aspects of patient care; to create a cost-effective program; and to correct identified problems in all areas of management. This program evolves in part from the hospital's long standing mission to provide well-coordinated, cost-effective, comprehensive services to the communities its serves with a special commitment to addressing the needs of the elderly and terminally ill.

As part of the hospitals Quality Asssurance effort, the medical staff reviews all mortalities for educational purposes and to document and substantiate the appriateness of the care and management in all cases. Similiarly, the Quality Assurance Program identifies and monitors all other aspects of patient care in hosptial management in an effort to continually improve the quality of patient care services within the hospital. These quality assurance activities have been standard practice at Bon Secours Hospital prior to governmental mandates in this area.

The Massachusetts Peer Review Organization empowered by the Federal Government to review the care and management of Medicare patients has not identified any instance of quality care issues affecting the overall care of those patients identified in the HCFA mortality report.

Bon Secours Hospital strives to provide the highest level of care for all patients. It has reviewed the HCFA data and prepared this response to assure we are meeting our own standards of quality care.

William L. Lane

William L. Lane
President/Chief Executive Officer

Date: October 27, 1987

BON SECOURS HOSPITAL
Methuen, MA

Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	49	6	52	3
CE -- Cerebrovascular Accidents	23	1	23	1
GC -- Gastrointestinal Catastrophes	10	1	10	1
GI -- Gastrointestinal Disease	14	1	14	0
GU -- Urologic Disease	5	3	3	4
GY -- Gynecologic Disease	0	0	0	0
HL -- Low-Risk Heart Disease	8	2	8	2
HM -- Severe Chronic Heart Disease	23	3	23	3
HS -- Severe Acute Heart Disease	30	0	30	0
ME -- Metabolic/Electrolyte Disturbances	7	1	7	1
OP -- Orthopedic Disorders	2	0	2.	0
PN -- Pulmonary Disease	36	8	37	7
RN -- Renal Disease	6	0	6	0
SE -- Sepsis	7	0	7	0
TR -- Severe Trauma	4	1	4	1
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	41	4	41	3
Total -- All Categories	265	31	269	26

CITY OF BOSTON
DEPARTMENT OF HEALTH AND HOSPITALS

818 HARRISON AVENUE
BOSTON, MASSACHUSETTS 02118

Tel. No. _____

October 28, 1987

Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

To Whom It May Concern:

Attached is a copy of the comments made by Boston City Hospital regarding the selected mortality statistics that are to be published by HCFA in December. The original letters was sent by Federal Express on October 27, 1987 to Department of Health and Human Services, 5600 Fishers Lane, Rockville, MD 20850.

Sincerely,

Maxine E. Kessler
Administrative Director
Medical Affairs
Boston City Hospital

DEPARTMENT OF HEALTH AND HOSPITALS

LEWIS W. POLLACK
Commissioner

818 HARRISON AVENUE
BOSTON, MASSACHUSETTS 02118

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

I am writing in response to your letter of September 21, 1987, regarding the selected mortality information that will be published for Boston City Hospital. In summary, in fourteen (14) of the fifteen (15) categories studied, the BCH mortality rates were within the limits proposed by HCFA. In ten (10) categories the mortality rates were well below the predicted mean and in three (3) categories the mortality rates were approximately at the mean. In the two (2) remaining categories, sepsis and severe trauma, the former was above the mean, but within the predicited range, and the latter was two per cent (2%) above the upper limit of the predicted range.

An explanation of the seven (7) deaths categorized as trauma is in order. Cardiac conditions leading to a cardiopulmonary arrest were responsible for four (4) deaths in a group of patients, mean age 83, admitted to the hospital with the diagnosis of fractured hip. The fifth patient, a 92 year old, died as a result of a fractured hip and epidural hematoma. The sixth patient died as a result of severe intra-abdominal hemorrhage which was uncontrollable at the time of surgery with no clear history of trauma. The seventh patient suffered a severe inhalation and thermal injury covering thirty percent (30%) of his body surface.

BCH believes that four (4) patients could be recategorized as cardiac. Mortality following inhalation and thermal injury (burns) are of a magnitude, in the elderly, that require separate classification.

A sample of cases in categories at or below the predicted mean were reviewed to determine the accuracy of the data and appropriateness of hospital care. This review resulted in agreement with the stated information. In many categories, however, including sepsis and severe trauma, the sample sizes appear to be too small to be statistically

significant.

BCH is committed to provide the same high standard of care to all patients. As a city hospital, BCH cares for a disproportionate share of the poor and near-poor. The nature of this case mix is that the majority of patients have major social and economic problems than patients in other hospitals that have like medical problems.

The commitment to provide quality care exists throughout all levels of BCH and the Department of Health and Hospitals of the City of Boston. There is active participation by the professional staffs, administration, and the Board of Health and Hospitals in monitoring and evaluating the quality of patient care. Through the medical staff committees and the Joint Conference Committee of the Board of Health and Hospitals, BCH will continue to review all aspects of patient care, including morbidity and mortality statistics.

Sincerely,

Lewis W. Pollack
Commissioner
Department of Health and Hospitals

BRIGHAM AND WOMEN'S HOSPITAL

H. Richard Nesson, M.D.
President

75 Francis Street
Boston, Massachusetts 02115
(617) 732-5503

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
HHH Building - Room 314G
Washington, D.C. 20201

Dear Dr. William Roper:

Brigham and Women's Hospital appreciates having this opportunity to respond to the Medicare mortality data released by the Health Care Financing Administration. We believe that the availability of data on the mortality experiences of hospitals can be an important step in determining how quality of health care should best be measured.

The fact that the Brigham and Women's Hospital actual mortality rate was either within or below the mortality range predicted by HCFA appears testimony to the high quality medical care we provide. However, we would discourage the public from blindly equating mortality rates with institutional quality. Adjustments for important factors such as severity of illness and overall health and psychological well-being are excluded from HCFA's statistical model.

These comments are not meant to discount, however, the importance of careful study of mortality data as published by HCFA. As part of our own ongoing commitment to ensuring the highest quality patient care, Brigham and Women's Hospital routinely reviews every death that occurs within our hospital. These data are used in conjunction with other indices to guide departmental peer reviews and the resulting corrective actions taken. Such findings and actions are reported on a regular basis, and monitored by the Clinical Chiefs of Staff, Medical Staff Quality Assurance Committee, Medical Staff Executive Committee, and Patient Care Assessment Committee of the Hospital Board of Trustees.

A Teaching Affiliate of Harvard Medical School

As a further part of these quality assurance efforts, the list of patient deaths provided to Brigham and Women's Hospital by HCFA has been reviewed by hospital staff for accuracy and consistency with our past reviews. Of the 166 mortalities attributed to Brigham and Women's Hospital, 137 were reported to have died within the hospital and twenty-nine to have died post-discharge but within thirty days of admission. Our analysis revealed discrepancies with the date of death for three patients. Two of these individuals actually died while inpatients at the hospital rather than post-discharge as reported and a third died as an inpatient on 03/06/86 rather than 03/04/86 as reported. Apart from these changes, we believe the list to be accurate.

Again, we would urge that continued efforts be made by HCFA to develop improved comparative data on mortality to augment the existing quality assurance review efforts of hospitals.

Sincerely,

H. Richard Nesson

H. Richard Nesson, M.D.

HRN/mle

Brockton Hospital

680 Centre Street
Brockton Massachusetts
02402

617-586-2600

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

Brockton Hospital has reviewed the mortality statistics for Medicare patients prepared by the Department of Health and Human Services and is pleased, but not surprised, to find that in all areas mortality statistics fall well within predicted ranges. This in-depth review and analysis was conducted within the auspices of our Medical Staff, specifically by Richard E. Knab, M.D., Chairman, Quality Assurance. Review of all in-hospital mortality, regardless of the patient's payment source, has been and will remain a mainstay of the Peer Review Process of Brockton Hospital.

While it is understood that these statistics may be an indicator of quality issues, Brockton Hospital is, nonetheless, concerned that dissemination of this material to the public at large can give rise to inappropriate comparisons among facilities whose patient mix, in terms of prior medical care, age, severity of illness, socio-economic status, etc. may be not at all comparable. Thus while this information is of potential value to clinicians, administrators and quality assurance personnel, its dispersal to the general public is viewed with caution and concern.

Sincerely,

Wayne M. Henry
President

ceg

Burbank Hospital

Nichols Road
Fitchburg, Massachusetts 01420
617 343-5000

Dr. William Roper
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

October 26, 1987

Dear Dr. Roper:

The following are Burbank Hospital's (Medicare Provider Number 220001) comments on the hospital-specific mortality information HCFA plans to publish in December 1987.

Sincerely yours,

BURBANK HOSPITAL

William J. Williams
President

Burbank Hospital is a 221 bed full-service not for profit community hospital and regional medical referral center. Services provided include adult and pediatric acute medical and surgical care, maternal and newborn care, mental health, oncology, hospice, rehabilitation services and acute and chronic renal dialysis. In addition, the Emergency Center functions as a trauma unit for the region. Since its service area contains a large and still growing proportion of people over the age of 65, Burbank Hospital has developed a widely recognized expertise in the care of the elderly. A number of special programs for this group of patients are already in existence and the ultimate goal, soon to be realized, is the development of a comprehensive continuum of high-quality gerontological care, including a 168 bed geriatric care center.

In recognition of the importance of continuously monitoring quality of care, Burbank Hospital has a hospital-wide Quality Assurance program, whereby all medical staff departments and all hospital departments review the care they render and judge it against pre-established standards. All deaths are reviewed monthly by the chairman of the Medical-Dental Staff Department responsible for the patient's care. The Quality Assurance program is overseen by a Hospital-wide Quality Assurance Committee of the Board of Trustees which is chaired by the Hospital President, and is composed of physicians, executive management, and members of the Board of Trustees. Among the oversight mechanisms used by the committee at its quarterly meetings, are the tracking of trends in a number of leading indicators of quality of care, one of which is mortality rates, and reviews of summaries of mortality studies by individual departments.

Burbank Hospital supports the concept of helping consumers of health care to evaluate the care rendered by a provider. It is, therefore, critical to mention a few facts about the Health Care Financing Administration (HCFA) mortality data. The assessment of a hospital's quality of care depends on evaluation of a number of variables, of which mortality is only one. Secondly, the data did not take into account the severity of illness of patients treated by a hospital or the existence of special programs which attract and treat sicker patients, such as oncology and dialysis. Finally, an individual's health is affected by a number of factors in addition to the quality of care received, including social factors, patient compliance, and preventive health measures. To automatically attribute a patient's death to one hospital admission is to draw a conclusion based on inadequate information.

Burbank Hospital is pleased that its mortality rates in all categories are well within the ranges projected by HCFA, despite the fact that there is some reason to believe its patients in some categories were more severely ill than the average. The Hospital reviewed 50% of all cases reviewed by HCFA for accuracy and additional information even though the HCFA data revealed no cause for concern. The following facts were revealed:

- 15% of the sample cases actually suffered from cancer, even though HCFA classified them in another category. (HCFA grouped patients by the diagnosis which brought patients to the Hospital, not by their most serious condition.)

- 56% of the deaths in the sample occurred in patients over 80 years of age, who are more at risk because of their frailty.

- 36% of the cases in the 17th category of miscellaneous diagnoses were admitted with cardiovascular or peripheral vascular disease. It is worth noting that Burbank Hospital receives transfers from other area hospitals for high-risk vascular surgery patients because of special physician expertise in that area.

Burbank's performance in this study underscores its regionally-recognized reputation for high quality care. Burbank Hospital uses a number of indicators in addition to mortality data to measure and track trends in both clinical quality and patient satisfaction.

CAPE COD HOSPITAL

27 Park Street/Hyannis, MA 02601/(617) 771-1800

Office of the President
James F. Lyons

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Hospital Mortality Information
P.O. Box 26684
Baltimore MD 21207

Dear Doctor Roper: MEDICARE PROVIDER NUMBER = 220012

We have reviewed the 1986 mortality statistics for our hospital provided by HCFA. We note that our hospital's adult mortality rates fall within the "range of predicted mortality rates" for all causes of deaths. We assume that this is good, but are cautious in drawing any firm conclusions from it. We believe that we are delivering high quality care but base that conviction on evidence more compelling than this data.

As you know, the data represents only selected conditions, mixes surgical and medical patients in the same category, and is uncorrected for severity of illness (except for "transfer" and eight categories of co-morbidities). The wide range of predicted rates of 0% to 58% and even to 78% in some diagnoses suggests the pitfalls in drawing conclusions from this data.

At best, the data could be helpful in focusing our own quality assurance review efforts toward conditions in which we deviated from the predicted. Since we had no such deviations, this data does not accomplish that for us.

Our hospital's medical staff quality assurance review includes:

1) medical death review

2) surgical mortality and morbidity review

3) surgical case review (indications for surgery)

4) code call review, and

5) perinatal morality review.

These regular reviews are supplemented with special studies such as indications for cesarean sections, indications for use of blood products, indications for and complications from endoscopy procedures, etc. Our review is organized along specialty lines and our hospital information system is organized along DRG lines, so that it would not be a simple process to refocus the review to the HCFA data which, as noted above, mixes various specialties and various DRGs.

TO: William L. Roper, M.D.
Administrator
HCFA

PG: 2
DT: Oct 26 1987
RE: Mortality information

Because of the different organization of the HCFA data, it was difficult for us to check the accuracy of data totals with readily available hospital statistics. We can check for accuracy on individual cases, and did so on a small selection of cases.

A 50% sample of two diagnostic categories (GI and Pulmonary) involving review of 36 charts revealed one patient who was listed as dying after hospitalization for GI condition but who actually died of cancer after a subsequent hospitalization. A review of 20 other cases selected randomly from the remaining 400+ identified deaths revealed no major errors.

It is worth noting that even in this very small sample of our review, there were several deaths associated with family or patient decisions to refrain from further treatment. Factors such as this not only further dilute the value of the data as a "proxy" for quality, but also, I suspect might exhibit significant regional variations.

In summary, we are tempted to herald this data as further confirmation of our good work, but we know deep down that such faith in this data is not warranted. Since our goal is to be the best, and not just to be "within the average range", we will continue unabatedly in our efforts to ensure the highest quality of care possible for all patients in our community.

Sincerely,

James F. Lyons

am

CARNEY HOSPITAL
A MEDICAL CENTER
SPONSORED BY THE DAUGHTERS OF CHARITY

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
PO Box 26684
Baltimore, Maryland 21207

Dear Sir:

Please find enclosed the comments regarding selected mortality information about Medicare patients treated at Carney Hospital during 1986.

Thank you for this opportunity to review and comment upon our hospital specific data.

Sincerely yours,

John W. Logue
President

JWL:pm
Enclosure

COMMENTS ON THE HCFA 1986 MORTALITY DATA

CARNEY HOSPITAL, BOSTON

(Medicare Provider # 220017)

A review of the 1986 HCFA mortality data for Carney Hospital indicates that the actual mortality rates fall within the low to middle range of predicted mortality rates for all diagnostic categories as calculated by HCFA. Without the detailed specifications of the analytic methods used in the statistical models by HCFA to generate the actual and expected mortality rates, it is difficult to validate the present data and its reliability.

However, it is known that two very important measures related to mortality and morbidity are absent from the model used by HCFA, i.e., the severity of the patient's illness and the stage of their illness at the time of admission to the hospital. Since the HCFA data base identifies all patients who died within 30 days of admission to the hospital, patients who died after discharge at home or at other post-discharge facilities are included as well as those patients who died while hospitalized. Without the knowledge of the patient's severity and stage of illness at the time of admission, it is impossible to use such mortality data as a direct measure of the hospital's performance or indication of the quality of care rendered.

The Carney Hospital has always been committed to the delivery of high quality patient care. Through the hospital's Quality Assurance Program, mechanisms are in place to evaluate morbidity and mortality data on an ongoing basis as part of the monitoring process which evaluates the quality of care rendered to all of its patients. The participation of the hospital's medical, nursing and administrative staff in this review process of patient care, enables the hospital to continually assess the needs of the patient population it serves and assists in identifying programs and services to meet these needs now and in the future.

CHOATE SYMMES HEALTH SERVICES

21 WARREN AVENUE, WOBURN, MASSACHUSETTS 01801 617-933-6700

MEDICARE PROVIDER # 220053

RE: Choate-Symmes Response to HCFA Mortality Data

Choate Symmes Hospitals, Inc. has received selected mortality information about Medicare patients treated in 1986 from the Health-Care Financing Administration.

We are a community hospital caring among others, for our families, friends, and neighbors. We take care to provide to each individual in need of our services, the highest standard of professional care. In order to insure each patient the highest quality care we are committed to ongoing analysis of our performance making changes when necessary.

Choate-Symmes Hospitals has a comprehensive and complex Quality Assurance Program. All clinical disciplines within the hospital are required to constantly monitor the services they provide. In addition, there are hospital-wide systems in place to monitor quality; these include patient complaint systems and screening mechanisms. This process is coordinated by a Quality Assurance Committee that meets regularly and is overseen by the Hospital's Board of Trustees.

Multiple sources are used to compile information about patient care in our Hospitals which is reviewed on an ongoing basis. We welcome the HCFA Data as interesting feedback from yet another potential source of useful information. We will attempt to verify the information and determine its usefulness in evaluating and improving our care.

During the month provided by HCFA for analysis and response the data was shared with most members of the Hospital Quality Assurance Committee. Committee members are not clear at this time how to best analyze and utilize the information provided by this statistical model. The data does show, however, that our hospital was in all cases below the norms. The overall rate published by HCFA is 13% in a predicted range of 12-18%.

In one instance, the category Renal Disease, our percentage fell closer to the top of the range. Each of the cases in this category were individually reviewed to verify the HCFA data. All of the patients had chronic multi-system illnesses. The sample included patients with cancer, cor pulmonale, alzheimers and intractable CHF. The typical patient was 83 years old and admitted moribund from a nursing home having refused food and fluids for days. They were in a pre-terminal state with multi-system failure. We, therefore, felt that the high normal range we were in reflected the skew of patients in this category that we cared for during the period of study.

Although the exact relevence of this data is unclear at this time, we are pleased to have compared so favorably in it. We will continue to study the information for it's usefulness in managing our system, and to the care we provide.

Any questions should be directed to the Office of the President, Paul L. Downey

COMMUNITY
OF CARE

The Clinton Hospital



CLINTON, MASSACHUSETTS 01510 TEL. (617) 365-4531

FREDERICK R. BOSS
President

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Hospital Provider # 220058

Dear Sir:

Enclosed you will find our comments on the Hospital Mortality Information of Medicare patients who expired at our hospital in 1986.

Sincerely,

Frederick R. Boss
President

FRB:jem

COMMUNITY
OF CARE

The Clinton Hospital



CLINTON, MASSACHUSETTS 01510 TEL. (617) 365-4531

FREDERICK R. BOSS
President

The Clinton Hospital is responding to the Health Care Administration's release of mortality data to assist the reader in an appropriate interpretation of the information. Use of mortality information as an indication of the quality of care given by specific institutions can be of value only when the data has been analyzed in association with factors that contribute to the final statistics.

A cursory review of the data for Clinton Hospital reflects that all categories studied were within the range predicted for a facility typically like ours. In the diagnostic categories listed by HCFA as low risk, our mortality rates were all in the lower one-third of the range predicted: 3 of the 6 categories had a 0% mortality rate. In the high risk diagnostic categories, 90% were at or below the median of the predicted range. Although the figures appeared to indicate no quality problems at our facility, the Clinton Hospital recognized the information could still be useful in further assessing our quality of care.

Members of the hospitals Quality Assurance Committee reviewed the records of all deaths identified in the HCFA study. Emphasis was placed on 7 major categories, 3 high risk groups in which our mortality rates were close to or above the median range set for the study; the 3 low risk groups in which any deaths were identified, and any deaths identified as having occurred within 30 days of hospital discharge.

Twenty deaths were attributed to the 3 high risk diagnostic categories of cancer, severe chronic heart disease and renal disease. The average age of the patients was 78 years. All patients had been admitted to Clinton Hospital from Skilled Nursing Facilities. In each case, the patient suffered from chronic illness; most had several prior acute admissions to the hospital. Every patient had documentation in the record that indicated either patient or family had requested no aggressive treatments be undertaken; most charts had DNR (Do No Rescusitate) orders present. In all instances, no quality of care issues were identified.

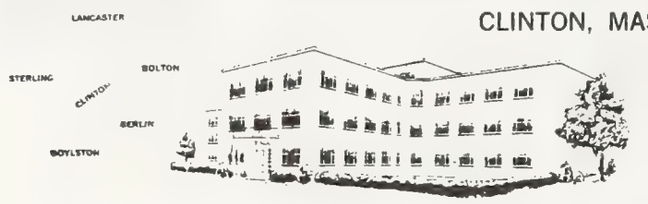
Three deaths were identified in the low risk groups, 1 each in the categories of low risk heart disease, gastrointestinal disease and urologic disease. The patient listed in the low risk heart disease was inappropriately identified in this group as the principal diagnosis of patient was actually septic shock. The cardiac problem, although present, was not the cause of death. The other 2 patients had multiple medical problems in addition to the ones identified. Death was most probably a result of the combined effect of these illnesses and the patients generally poor health at the time of treatment. All 3 patients had DNR orders written on the record by request of patient and/or family.

In the category of patients who died within 30 days of discharge from the hospital, a total of 13 records were identified for review. The average age of these patients was 79 years. Our study indicated:

COMMUNITY
OF CARE

The Clinton Hospital

CLINTON, MASSACHUSETTS 01510 TEL. (617) 365-4531



FREDERICK R. BOSS
President

2 of the 13 patients actually died in the hospital, and thus had been incorrectly identified in this group by HCFA.

8 patients were discharged to Skilled Nursing Facilities. Of these, all had DNR or no aggressive treatment requests documented in the record by patient or family.

1 patient had multiple medical problems requiring numerous acute hospital admissions over several years. This patient was admitted in a critically ill state and was transferred to a larger teaching hospital for more intensive therapy.

1 patient was discharged to a Skilled Nursing Facility. The cause of death at the facility was unrelated to the illness the patient received care for in the hospital.

1 patient was discharged to home. The condition of the patient was stable prior to discharge. Appropriate follow-up with the attending physician was scheduled. No quality of care issue could be identified.

The study results of the Clinton Hospital Quality Assurance Committee are substantiated by results of external quality screenings. The Health Care Administration has contracted a local review agency to perform quality screening reviews at Massachusetts acute care hospitals. In reviewing the findings of these studies none of the patients identified in HCFA'S mortality data have been found to have quality of care issues on the external reviews by the agency contracted by HCFA.

The Clinton Hospital supports the Health Care Administration attempts to identify quality of care issues, and recognizes the need to perform the same types of activities within the hospital on an ongoing basis. We maintain several committees within the hospital to review care given to patients. Individual departments, multidisciplinary groups, the Medical Staff, and an overall hospital wide Quality Assurance Committee meet monthly to perform studies, evaluate data, and recommend changes for improving the care given to our patients. Through such continuous efforts we hope to be able to provide patients with the best care possible.

Frederick R. Boss
President

The Cooley Dickinson Hospital, Inc.
30 Locust Street
Northampton,
MA 01060-9990
(413)584-4090

October 21, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

Please find attached our comments relevant to the release of hospital mortality data. Also attached is a confidential list of errors we have identified after review of city death certificates and our own medical records for the categories of G.I. Diease and Low Risk Heart Disease. These were the only categories we specifically analyzed.

Sincerely,

Willis H. Brucker,
President

Attachments

RCW/r

Certified Mail - Return Receipt Requested

The Cooley Dickinson Hospital, Inc.

30 Locust Street
Northampton,
MA 01060-9990
(413)584-4090

The Cooley Dickinson Hospital has a rich tradition of providing high quality care to its' patients. The Health Care Financing Administration (HCFA) is preparing to release mortality information on our hospital and these brief comments address that action.

We have reviewed their statistics and note that our actual mortality rates have been assessed by HCFA to fall in the predicted range across all diagnostic categories. This information may be used further in our quality assurance program but is not in itself a measure of hospital performance. Mortality rates and predicted ranges may vary for many reasons from year to year.

We have not validated data or specifically tested its reliability in all areas. We can however make several comments about it. The deaths reported are for patients ranging in age from 57 - 99. Of this group, twenty-six percent were age 85 or older. The average age at death was 78. All deaths within the hospital are reviewed by physicians as part of our quality assurance program. Three diagnostic categories merit further comment.

Our mortality rate for Cancer patients should be viewed with consideration of several items. We work closely in agreement with the area Hospice program and people with this diagnosis often die in the hospital. As a regional cancer program, individuals and families are served from a broad geographic area. Our efforts to assure quality and our patient care review activities have resulted in our approval by the American College of Surgeons as a Community Hospital Comprehensive Cancer Program.

Secondly, we noted our lower actual rate in the range of predicted mortality rates for Gastrointestinal Catastrophies against a higher actual rate in the range for G.I. disease. We therefore chose to further analyze the latter. Three of these patients died outside of the hospital. In fact, 10/15 of these patients died for reasons other than their G.I. disease. This results in an actual mortality rate of 3% rather than the 9% reported. The average age at death was 82 and all had other pre-existing medical conditions.

Thirdly, while we chose not to specifically analyze deaths related to Severe Acute or Chronic Heart disease, we did review deaths in the category of Low-Risk Heart Disease. Two patients died outside of the hospital. One-third died of causes other than their Heart Disease resulting in an actual mortality rate of 5% rather than the 7% reported. The average age at death was 86 and again, other pre-existing medical conditions were noted.

Through continuing programs of education, audits, studies and clinical monitoring, the Cooley Dickinson Hospital works to assure quality. Our attending physicians, their Chiefs of Services, the medical staff Quality Assurance Committee, Medical Executive Committee, Patient Care Assessment Committee and departments throughout the hospital participate for the Board of Trustees in maintaining the highest standards of care. As a licensed and accredited hospital, we are regularly undergoing reviews by insurers, state and federal agencies. We are eager to hear from those who use our hospital's service and routinely ask for their comments.

In conclusion, we stand fast in our committment to use all available resources in providing the best possible care to everyone in our community who is in need.

Willis H. Brucker
President

The Cooley Dickinson Hospital, Inc.
Hospital I.D. Number 220015

CONFIDENTIAL

MORTALITY ERROR LISTING

CAT.	PT. NUMBER	DATE OF DEATH	CAUSE OF DEATH
G.I.	[redacted]	10-27-86	Massive Pulmonary Embolism
G.I.	[redacted]	11-1-86	Acute M.I.
G.I.	[redacted]	6-26-86	Breast Cancer
G.I.	[redacted]	2-14-86	Pneumonia, Respiratory Failure
G.I.	[redacted]	1-23-86	Emphysema
G.I.	[redacted]	11-2-86	Acute M.I.
G.I.	[redacted]	2-27-86	Renal Failure,Cardiac(Vent.Tachy.)
G.I.	[redacted]	3-10-86	Cardio-Pulmonary Arrest
G.I.	[redacted]	11-30-86	Sepsis
G.I.	[redacted]	4-19-86	C.H.F.
H.L.	[redacted]	6-3-86	Sepsis
H.L.	[redacted]	4-2-86	Cancer Urinary Bladder
H.L.	[redacted]	9-4-86	Cirrhosis

DANA-FARBER
CANCER INSTITUTE

44 Binney Street, Boston, MA 02115

BARUJ BENACERRAF, M.D
President

617-732-3636

HARVARD MEDICAL SCHOOL
Fabyan Professor of Comparative Pathology

Medicare provider # 220162

October 27, 1987

Health Care Financing Administration
Washington, D.C. 20201

Ladies & Gentlemen:

Thank you for the opportunity to comment on the Dana-Farber Cancer Institute's Medicare mortality data for 1986.

The Dana-Farber Cancer Institute is a federally designated Comprehensive Cancer Center, whose full resources are directed to the diagnosis and treatment of cancer. The Institute is a tertiary referral hospital whose patients live principally in New England and the Middle Atlantic states.

Patients referred to the Dana-Farber, in general, have advanced, systemic (metastatic) cancer or, if in an earlier stage of a disease, such as leukemia, present complex management problems. The Institute is unique in that it specializes in the medical treatment of advanced cancers.

A review of the thirty-five patients listed shows that six had diagnoses of lung cancer, six had diagnoses of cancer of the gastrointestinal tract and three had diagnoses of pancreatic cancer. In their advanced stages, these cancers are not amenable to cure, but only to management with the goal of extending survival and enhancing the quality of life.

Indeed, we noted with interest that the Dana-Farber data showed an actual mortality rate of 28% for all cases, compared to a predicted mortality rate of 29% to 47% given the clinical circumstances of the patients studied.

We would like to point out that one patient [redacted] was again hospitalized subsequent to the date shown in 1986. The patient was admitted in January, 1987 and died in January, 1987. Thus, the number of cases remains the same, but the mortality rate is minimally lower.

Yours truly,

Baruj Benacerraf
President

Emerson Hospital

Rina K. Spence
President

Medicare Provider #220084

Old Road to Nine Acre Corner
Concord, MA 01742
(617) 369-1400

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Thank you for your letter of September 21 and the information about our hospital. The mortality data for Medicare patients admitted to Emerson Hospital during 1986 have been reviewed, and we are submitting the following comments for inclusion in HCFA's December publication of the information.

The table shows a list of selected diagnoses, the number of patients admitted to Emerson Hospital in each category over the course of the year, the percent of patients who died within 30 days after their last admission to Emerson Hospital in 1986, and a range of predicted mortality rates based on a mathematical model.

We have determined the data reported by HCFA accurately reflect the deaths that occurred within Emerson Hospital. We also have initiated a verification process to assess the accuracy of the information about the deaths that occurred outside the hospital, since the mortality rates also include patients who subsequently died after they were discharged from Emerson.

In each of the 16 diagnostic groups studied, the actual mortality rates for Emerson Hospital were within the range of predicted mortality rates. In fact, in 14 of the 16 diagnostic groups, the actual mortality rates for Emerson Hospital were in the lower half of the predicted range.

In the past, mortality rates were not used to assess the quality of hospital care because it was widely recognized that age, diagnosis, and other factors also played an important role in determining the results of each patient's hospitalization. But by developing sophisticated mathematical models that take these, and selected other factors into account, health care researchers have begun to refine information on mortality rates. These models are still evolving; and Emerson Hospital agrees with HCFA that the published mortality information does not offer a definitive measure of the quality of hospital care.

However, Emerson Hospital believes information about mortality rates can be a valuable tool to help a hospital identify or suggest areas for review. Mortality rates also help our physicians analyze practice patterns and reinforce Emerson's system of peer review.

For 76 years, Emerson Hospital has been committed to the highest standards of medical care. Consistent with its mission to deliver medical services in a high quality manner, Emerson has a quality assurance/risk management program which continually monitors and pursues all opportunities to improve patient care, resolves identified problems, strengthens the process of physician credentialing, and employs measures to prevent substandard practice. In addition, our physicians meet on a regular basis to review the care of patients who die.

Finally, Emerson Hospital welcomes HCFA's publication of this information, primarily because we feel it can assist members of the public by encouraging them to ask questions of hospitals and their physicians. We believe this will enable them to make more informed decisions about their health care.

Sincerely,

Rina K. Spence
President and Chief Executive Officer

RKS:jq

FAIRLAWN
REHABILITATION
HOSPITAL

October 28, 1987

Dr. William L. Roper
Administrator
Department of Health & Human Services
Health Care Financing Administration
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

Fairlawn Hospital is in receipt of the 1986 mortality information concerning Medicare patients treated at our facility during that fiscal year. Our comments are herein attached. In review of that information we had two areas of concern, most notably they are in the area of urologic disease where we exceed the midpoint by 6%. It is our belief that these patients received appropriate medical treatment and that their deaths were unpreventable even with vigorous treatment procedures. In the area of sepsis, Fairlawn Hospital had three patients admitted who were sepsis. Their deaths were expected and unpreventable.

Attached you can find an analysis of our mortality review for your records. If you have any questions please do not hesitate to call me. Our hospital feels that we have made every effort possible to provide these medicare patients with appropriate treatment and thus their deaths were unpreventable.

Sincerely,

Francis P. Kirley
President/CEO

FPK/sebs
Encl.

189 May Street
Worcester, MA 01602
617-791-6351

HOSPITAL = 220072 FAIRLAWN HOSP INC WORCESTER MA

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	MID PT.	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	393	13 %	13 %	8 TO 17 %
CA - CANCER	CA 35	26 %	25 %	10 TO 39 %
CE - CEREBROVASCULAR ACCIDENTS	CE 6	33 %	39 %	7 TO 71 %
EY - OPHTHALMOLOGIC DISEASE	EY 5	0 %	50 %	0 TO 100 %
GC - GASTROINTESTINAL CATASTROPHES	GC 9	0 %	25 %	2 TO 52 %
GI - GASTROINTESTINAL DISEASE	GI 37	0 %	10 %	1 TO 19 %
GU - UROLOGIC DISEASE	GU 28 **	18 %	12 % **	1 TO 24 %
GY - GYNECOLOGIC DISEASE	GY 3	0 %	50 %	0 TO 100 %
HL - LOW-RISK HEART DISEASE	HL 21	5 %	14 %	1 TO 27 %
HM - SEVERE CHRONIC HEART DISEASE	HM 20	10 %	26 %	9 TO 45 %
HS - SEVERE ACUTE HEART DISEASE	HS 6	33 %	47 %	13 TO 80 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	ME 22	23 %	26 %	8 TO 44 %
OP - ORTHOPEDIC DISORDERS	OP 19	0 %	26 %	0 TO 52 %
PN - PULMONARY DISEASE	PN 30	33 %	42 %	11 TO 42 %
RN - RENAL DISEASE	RN 9	33 %	41 %	11 TO 70 %
SE - SEPSIS	SE 3 * * *	*100 %	50 % ***	9 TO 90 %
TR - SEVERE TRAUMA	TR 11	18 %	24 %	2 TO 45 %

MA 38.1

Note: Study selection process:

The mid point of the expected or predicted range of mortality was identified and only those diagnoses where our mortality rate exceeded that point were selected for Medical Record review.

Discussion of those cases is attached.

A.M. Golden 10/22/87

FAIRLAWN
REHABILITATION
HOSPITAL

October 28, 1987

Dr. William L. Roper
Administrator
Department of Health & Human Services
Health Care Financing Administration
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

Fairlawn Hospital is in receipt of the 1986 mortality information concerning Medicare patients treated at our facility during that fiscal year. Our comments are herein attached. In review of that information we had two areas of concern, most notably they are in the area of urologic disease where we exceed the midpoint by 6%. It is our belief that these patients received appropriate medical treatment and that their deaths were unpreventable even with vigorous treatment procedures. In the area of sepsis, Fairlawn Hospital had three patients admitted who were sepsis. Their deaths were expected and unpreventable.

Attached you can find an analysis of our mortality review for your records. If you have any questions please do not hesitate to call me. Our hospital feels that we have made every effort possible to provide these medicare patients with appropriate treatment and thus their deaths were unpreventable.

Sincerely,

Francis P. Kirley
President/CEO

FPK/sebs
Encl.

189 May Street
Worcester, MA 01602
617-791-6351

HOSPITAL = 220072 FAIRLAWN HOSP INC WORCESTER MA

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	MID PT.	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	393	13 %	13 %	8 TO 17 %
CA - CANCER	35	26 %	25 %	10 TO 39 %
CE - CEREBROVASCULAR ACCIDENTS	6	33 %	39 %	7 TO 71 %
EY - OPHTHALMOLOGIC DISEASE	5	0 %	50 %	0 TO 100 %
GC - GASTROINTESTINAL CATASTROPHES	9	0 %	25 %	2 TO 52 %
GI - GASTROINTESTINAL DISEASE	37	0 %	10 %	1 TO 19 %
GU - UROLOGIC DISEASE	28 **	18 %	12 % **	1 TO 24 %
GY - GYNECOLOGIC DISEASE	3	0 %	50 %	0 TO 100 %
HL - LOW-RISK HEART DISEASE	21	5 %	14 %	1 TO 27 %
HM - SEVERE CHRONIC HEART DISEASE	20	10 %	26 %	9 TO 45 %
HS - SEVERE ACUTE HEART DISEASE	6	33 %	47 %	13 TO 80 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	22	23 %	26 %	8 TO 44 %
OP - ORTHOPEDIC DISORDERS	19	0 %	26 %	0 TO 52 %
PN - PULMONARY DISEASE	30	33 %	42 %	11 TO 42 %
RN - RENAL DISEASE	9	33 %	41 %	11 TO 70 %
SE - SEPSIS	3 * *	*100 %	50 % ***	9 TO 90 %
TR - SEVERE TRAUMA	11	18 %	24 %	2 TO 45 %

MA 38.1

Note: Study selection process:

The mid point of the expected or predicted range of mortality was identified and only those diagnoses where our mortality rate exceeded that point were selected for Medical Record review.

Discussion of those cases is attached.

A.M. Golden 10/22/87

ANALYSIS OF HCFA MORTALITY DATA RECEIVED 10/19/87

PATIENT # 1: Category SE

This 88 Year old female was admitted "in extremis" and expired 33 hours later. Her diagnosis was hepatocellular cancer. A DNR order had been written at admission. The patient was exceedingly septic (WBC 27,700) with additional erratice lab values.

Opinion: This death was expected and unpreventable.

Patient # 2: Category SE

This 80 year old female was admitted unresponsive; a DNR order had been written and she expired 16 3/4 hours after admission. Her diagnosis was sepsis (WBC 22,000) with Klebsilla Pneumoniae identified upon blood culture.

Opinion: This death was expected and unpreventable.

Patient # 3: Category SE

This 85 year old male was admitted following the sudden onset of fever, chills and change in mental status. He was presumed septic at admission (WBC rose from 13,000 to 43,400 within the first 24 hours). This was later confirmed. His condition worsened shortly after admission when he was transferred to ICU with Blood Pressure of 70/40. He had had an acute myocardial Infarction. At this point a DNR order was written andhe expired three and one half days after admission. Autopsy revealed two impacted gallstones (Patient had his gallbladder removed in the past), and severe three vessel coronary artery disease.

Opinion: This death was unexpected but also unpreventalbe.

An additional 5 records were reviewed representing deaths in the GU (urologic disease). These in fact are 5 additional deaths due to sepsis originating from the urniary tract.

Patient #4:

An 80 year old male was admitted on 9/24/86 lethargis with occasional Cheyne-Stokes respirations. Lab values were very irregular, DNR writtn 10/2/86.

Opinion: Despite changes in antibiotic therapy, BUN and Creatinine levels rose uncontrollably. This death was also unpreventable.

Patient #5:
A 90 year old female admitted unresponsive with UTI, elevated BUN (26) high WBC and brown urine.

Opinion: Unpreventalbe and expected death.

Patient #6:
A 75 Year old female admitted unresponsive, BUN 78K 6.7 which both rose: BUN 90; K 7.8 despite vigrous treatment. The patient experienced mild congestive heart failure two days prior to her death. She had been a long term nursing home patient and was admitted with a foley catheter in place, the presumed site of origin of her sepsis.

Opinion: Vigorously treated but unpreventable death.

Patient # 7:

A 91 year old female admitted ambulatory form home with foul smelling urine. A comprehensive meidcal work up was completed DNR order written 12/3/87, patient expired 2 days later.

Opinion: With our best efforts, the patient was 91 years old.....

Patiesnt # 8:

A 74 year old female admitted with urosepsis from a nursing home who suffered an acute GI bleed. (Also had Alzheimer's).BUN 60.

Opinion: Unprefventable death.

Discussion of a summary nature:

Of the eight patient deaths seleceted for review, 2 were male,6 female. Their ages ranged from 74 to 91 years, Mean age 82.6, Median age 82.5. All had a diagnosis of sepsis, with five having the urinary tract identified as the site of origin. All cultures were done on a timely basis and antibiotics changed as ncessary, to no avail.....

A.M. Golden
10/22/87

Comments on HCFA Medicare Mortality Study

at Fairview Hospital

At Fairview Hospital the mortality experience of 527 Medicare cases, representing the last admission for each patient in 1986, was studied by the Health Care Finance Administration to determine if there was excess mortality at this particular hospital. The data were adjusted for the age and case mix of the hospital's caseload. The HCFA report indicates a 13% mortality from all causes, a number well within the expected range of 10-19%. In each of the separate clinical categories, Fairview's mortality rate was within the norms established by HCFA.

Of the 71 patients who died, 56% were women with an average age of 82 years and 44% were men with an average age of 81 years. Average life expectancy is 78 years for women and 71 years for men.

The records of the fourteen cases who died after discharge were studied in depth. One error (7%) was found. The patient was not discharged but transferred to Mt. Sinai Hospital in New York. Nine patients were discharged to a nursing home because of chronic health problems and need for care. Six patients had cancer, which was designated as metastatic, terminal or unresponsive to treatment. One was listed as worsening global failure and one was given a diagnosis of severe endstage chronic obstructive pulmonary disease. Only one of the fourteen (7%) was identified by the physician as being discharged to a nursing home in good condition. This 87 year old woman subsequently died there of cardiac arrest.

Fairview Hospital management feels that while the HCFA study may be useful in identifying unusual patterns of mortality and unexpected deaths, it does not substitute for the more detailed and comprehensive quality assurance mechanisms built into the hospital operations. These include measures to secure a qualified medical and nursing staff; to monitor many aspects of patient care; to assure appropriate admissions, treatment, consultations, communication and documentation; to be cost-effective and accountable to third party payors; and, to be responsive to patient and family concerns.

Patients and the community-at-large can be assured, not solely from the favorable results of the HCFA study, but also from the internal quality assurance procedures and protocols, as well as the external standards of regulatory bodies and accrediting agencies, that Fairview Hospital is committed to and able to delivery quality patient care.

October 22, 1987

MM:je
36-77

FALMOUTH HOSPITAL

TER HEUN DRIVE / FALMOUTH, MASSACHUSETTS 02540 / TELEPHONE (617) 548-5300

October 26, 1987

The Falmouth Hospital has reviewed the mortality rates regarding 1986 Medicare patients admitted to this hospital. Although we have serious reservations as to the methodology used and summarized in this data, we agree with you that we should be constantly striving to improve the quality of care our patients receive and we shall use the information provided to further that cause. At the Falmouth Hospital each death is reviewed at a quarterly mortality conference. This is, however, only the last step in the effort to monitor and improve the quality of care provided to our patients.

Currently there are 12 standing committees comprised of members of the medical staff, nursing staff, administration, trustees, and others that review the process and outcome of medical care. These committtes include those that over-see the Emergency Room, Operating Room, Pharmacy, Blood Usage, Psychiatric Care, Oncology, I.C.U., and Infections. Additionally, each department (medicine, surgery, anesthesia, pediatrics, etc.) has a regular meeting to review methods and any problems with care. All of this work is then reviewed and further evaluated by the Patient Care Assessment/Quality Assurance Committee.

There are, indeed, other ways in which our hospital reaches for quality of care and specifically did so in the year 1986. Such programs as the evaluation of specific illnesses including Fevers Of Unknown Origin or the review of readmissions to the hospital are more in-depth studies.

In summary, the Falmouth Hospital continues to make every effort to minimize preventable deaths and our quality control measures extend well beyond this isolated issue. The fact that your data indicates that the mortality rates for this hospital were low does not allow for complacency. Finally, we are aware that with the best of care the results of such mortality percentages are greatly influenced by the severity of illnesses that our patients have and that such death percentages could vary widely in a small community from one year to the next.

We look forward to working successfully with HCFA and providing the best in care to the citizens of our community.

Sincerely,

Roy Hitchings, Jr.
President/Chief Executive Officer

flw

HOSPITAL = 220185 FALMOUTH HOSPIAL ASSOCIATION FALMOUTH MA

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
* ALL CAUSES	1,412	10 %	10 TO 17 %
CA - CANCER	124	19 %	15 TO 33 %
CE - CEREBROVASCULAR ACCIDENTS	71	27 %	18 TO 40 %
EY - OPHTHALMOLOGIC DISEASE	6	0 %	0 TO 99 %
GC - GASTROINTESTINAL CATASTROPHES	82	22 %	8 TO 37 %
GI - GASTROINTESTINAL DISEASE	133	2 %	2 TO 11 %
GU - UROLOGIC DISEASE	86	1 %	1 TO 13 %
GY - GYNECOLOGIC DISEASE	9	0 %	0 TO 97 %
HL - LOW-RISK HEART DISEASE	106	2 %	2 TO 11 %
HM - SEVERE CHRONIC HEART DISEASE	91	20 %	16 TO 34 %
HS - SEVERE ACUTE HEART DISEASE	53	32 %	26 TO 53 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	33	18 %	11 TO 43 %
OP - ORTHOPEDIC DISORDERS	61	5 %	1 TO 13 %
PN - PULMONARY DISEASE	124	23 %	14 TO 31 %
RN - RENAL DISEASE	18	0 %	11 TO 62 %
SE - SEPSIS	18	11 %	15 TO 59 %
TR - SEVERE TRAUMA	87	5 %	2 TO 23 %

*Represents Medicare claims filed not total Medicare discharges for year

**Falmouth Hospital Mortality

Total Deaths in Report: 139

In hospital 110

Within 30 days of discharge 29

Farren Memorial Hospital Turners Falls, Massachusetts 01376-9983 / Telephone 413-774-3111

October 23, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE: Data Verification

Dear Dr. Roper:

The data used by HCFA indicate that a total of 72 Medicare patients admitted to the Farren Memorial Hospital died within thirty (30) days of admission, of these, fifty-seven (57) died while still a patient of the hospital, while fifteen (15) died after discharge. This data has been reviewed and the corrections are attached.

According to our records, there were 1068 Medicare admissions during 1986 while HCFA data listed the number of Medicare beneficiaries treated in 1986 as 618. This represents a difference of 450 Medicare admissions. According to HCFA criteria, the admission number excludes all but the last admission of beneficiaries admitted more than once during the year, however, without the detailed information available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the data used in this analysis.

In all of the diagnostic categories listed, the actual mortality rate was well within the predicted range and could actually be a much lower percentage following further review of the HCFA data.

As part of the hospital's Quality Assurance Program, the Farren Memorial Hospital will continue its ongoing review of all deaths in accordance with clinically valid criteria to assure that the care provided is timely and appropriate and that in the event of death, that the death was inevitable and not preventable.

Sincerely,

Allan W Freeman

Allan Freeman
Chief Operating Officer

AF/kap
Encl.

CC: Diane Kelley

Providence Systems 209 Carew Street • Springfield, Massachusetts 01104 • 413 737-3981

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Faulkner Hospital

Allandale at Centre Street
Boston, Massachusetts 02130
(617) 522-5800

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

To Whom It May Concern:

Below are our comments relative to the HCFA mortality data that were mailed in late September, 1987. Where errors were found in the data, we have enclosed the patient data sheets provided by HCFA. Cases with errors have been highlighted, with corrections noted at the bottom of the sheet.

COMMENTS

Extensive case review on the reported data revealed seven (7) cases/3%, where errors were identified with the HCFA data. These corrections have all been submitted to HCFA. Though HCFA indicates a total of 2,187 cases were considered in all categories, our records reflect that there were 3,689 discharges in calender year 1986. Presumably the discrepancy could reflect multiple admissions of individual beneficiaries, though it is impossible to verify the accuracy of the HCFA data for this element as well as the accuracy of the reported HCFA data pertinent to those patients said to have expired after discharge.

Faulkner Hospital takes great pride in its commitment to quality care. Our unified goal for the provision of high quality patient care encompasses the Governing Body, Management, the Medical Staff, the Nursing Staff and all hospital departments that provide patient care services both directly or indirectly. Significant resources are devoted to assuring high quality care through a continuous, systematic process of review and evaluation of the quality and appropriateness of care provided. This process, which has been in place for many years, seeks to identify, on an ongoing basis, problems and/or opportunities to improve patient care. When there is any indication of a potential quality problem, this leads to a prompt and thorough investigation to determine if a problem, indeed, exists. When a quality problem is identified, immediate corrective action(s) is(are) taken. Monitoring continues to assure sustained resolution.

Though it is recognized and generally accepted that the HCFA Mortality Data, in and by itself, is not a measure of quality, this type of data can be useful as a tool for further evaluation. Since quality can only be evaluated through a process of peer review, a broad scope of review processes have existed at Faulkner for many years. At the helm of this endeavor is a medical staff/peer review committee established primarily for the purpose of dealing with quality issues.

As with any of our quality related screening processes, the receipt of HCFA Mortality Data triggered a review to identify if any problems exist. In concert with the hospital-wide systematic process that we have in place, data is not only reviewed for isolated problems and/or opportunities to improve care,

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

but is also reviewed for trends that could impact on quality. Our review revealed no significant problems or trends.

Since the provision of high quality care is of the utmost concern to us, we welcome the on-site reviews by the State Peer Review Organization (PRO) where, monthly, a significant number of Medicare cases are reviewed for quality issues. For these cases, no significant quality of care problems have been identified . In addition, the Joint Commission on Accreditation of Hospitals (JCAH) periodically assess an institution's degree of compliance with a large number of standards which are designed to guide hospital professionals in the provision of quality care and services within a safe and sanitary environment. The overall intent of the standards is to further quality of patient care. Accreditation decisions, subsequent to on-site surveys, are based on substantial compliance with the standards on the part of an accreditated organization. We have always welcomed this very indepth, intense survey and are proud to have always been recognized as being in compliance with the JCAH standards.

A multitude of reviews to identify quality issues or opportunities to improve care exist at Faulkner. This includes, in small part, review of readmissions, review of unplanned transfers to the concentrated care units, review of medical stability at discharge, review of unplanned admissions from the Surgical Day Care area, infection surveillance, review of case management and clinical performance relative to various high volume/high risk diagnoses and procedures.

Though we recognize the limitations of the HCFA Model, i.e., that the ability of the model to detect differences in quality has never been evaluated and measure of severity is lacking, to name a couple, the data can be used as a screening tool.

We do recognize that mortality review is one of several important components of a comprehensive Quality Assurance Program. To this end, as part of our Quality Assurance Process, all deaths that occur in the hospital are monitored and evaluated. This is far more than a statistical analysis and includes medical record review that assesses case management and clinical performance.

Sincerely,

Elaine S. Ullian

Elaine S. Ullian
President

ESU:jaf

Framingham Union Hospital
115 Lincoln St., Framingham, Massachusetts 01701 • (617) 879-7111
A Community Teaching Hospital Affiliated with Boston University Medical Center

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper,

Framingham Union Hospital thanks you for this opportunity to review and respond to the data as presented. Included in our response will be the following:

I. Analysis of the category *Severe Acute Heart Disease*
II. FUH's quality assurance commitment and program
III. Discussion of mortality reviews as measure of quality care
IV. Limitations of HCFA methodology

I. Analysis of Category: *Severe Acute Heart Disease*

The review of the 93 cases (54 deaths) listed by HCFA under the *Severe Acute Heart Disease* category has shown:

A. 3 patients should be reclassified -- see attached sheet
B. 16 patients were placed on DNR orders at the request of their families.
C. 11 patients entered the FUH Emergency Room in cardiac arrest and died within a few hours of the arrest.
D. 4 elderly patients died from a ruptured aneurysm.
E. The average age of these patients was 78.

Based on our review, there were 51 fatal cases that appropriately fit into the category *Severe Acute Heart Disease*. Of these 51 cases, 30 fit into one of these above categories (B, C, D, or E) in which a fatal outcome is virtually inevitable.

It is also important to note that all 51 deaths occurred in the hospital setting. We believe that, unlike other communities nationwide, the high level of EMT training and rapid response times available in our catchment area is what enabled 11 patients in cardiac arrest to make it to the Emergency Room in time to receive care. While these 11 patients expired, the availability of this EMT expertise also afforded other patients in this category timely acute care intervention which resulted in a positive outcome.

II. Framingham Union Hospital Quality Assurance Program

Framingham Union Hospital has an ongoing quality assurance program which is actively supported by the Medical Staff, Nursing and Administration. This program meets both internal and external standards, such as JCAH, in terms of comprehensiveness and structure. Outcome indicators, of which death is one, are routinely reviewed on a 100% concurrent basis by the Medical Staff QA Committees and the Chair of the Department. Individual cases and monthly patterns are reviewed to determine if problems exist or patterns are discernible.

The purpose of both concurrent and retrospective review is to provide meaningful data to effect rapid solutions where needed. In addition to the internal system of case review, FUH continually receives data from outside sources which is then incorporated into the ongoing review process.

The HCFA Mortality Analysis tool is helpful because it represents yet another way to approach case review. It must be noted, however, the statistics supplied from HCFA are only a starting point for analysis and cannot be interpreted as an indicator of quality.

III. Discussion of Mortality Reviews as a Measure of Quality of Care

It is important to note that the HCFA mortality rates, by themselves, do not measure <u>quality</u> of care. Statistical comparisons when used alone can easily be misinterpreted as an indicator of quality. FUH believes the best use of mortality data is to guide and focus peer review efforts. These statistics should be used as a signal of where to look, and FUH will use the data in this manner.

Framingham Union Hospital wants to emphasize the results of case-by-case mortality review are recognized invaluable aids in teaching, continuing education and improvement of clinical care if needed.

IV. Limitations of HCFA Methodology

As discussed by the American Hospital Association, the American Medical Association and the Massachusetts Hospital Association, the HCFA statistical model and results must be viewed with the following caveats in mind:

1. This type of analysis is insensitive to known differences in the severity of illness among hospital inpatient populations.
2. This type of analysis is unable to reflect the relative condition of patients upon arrival at the hospital.
3. This type of analytical tool has not been validated as an indicator of quality of care delivered in the hospital setting.
4. The data being released only applies to the Medicare population and is not indicative of the population of cases treated at FUH. For the same time frame, non-Medicare cases experienced a 12% mortality rate.
5. Variations from predicted rates may result from patient characteristics and comorbidities not measured in the model, events unrelated to hospitalization or pure statistical chance.

If you have any questions about this material, please contact Public Relations at 626-3578.

Sincerely,

Raymond Koff, MD

Raymond S. Koff
Chair, Department of Medicine

Gerald Evans

Gerald L. Evans
Chief of Cardiology

Framingham Union Hospital --- Attachment I

(1) [redacted] Admit: 7/11/86 DC: 8/2/86

Original ICD-9: 410.7 Changed To: 507.0

(2) [redacted] Admit: 1/4/86 DC: 1/8/86

Original ICD-9: 410.1 Changed to: 599.0

(3) [redacted] Admit: 02/25/86 DC: 3/6/86

Original ICD-9: 410.4 Changed to:482.0

FRANKLIN
MEDICAL CENTER

October 27, 1987

Comments on the HCFA Mortality Data

Franklin Medical Center
Greenfield, Massachusetts 01301

Medicare Provider Number 220016

Data Verification

The data supplied by HCFA indicates that for the year 1986 a total of 120 Medicare patients admitted to Franklin Medical Center died within 30 days of admission. Of these, 95 died while still a patient in the hospital and 25 died after discharge. According to Franklin Medical Center statistics, 1481 Medicare admissions occurred in 1986. Our records also indicate that 1455 Medicare patients were discharged alive and there is no way we can verify the number who died after discharge as that information is not part of the medical record. Presumably, the discrepancies in part reflect multiple admissions of the same beneficiaries.

Interpretative Remarks

The hospital's actual mortality rate in all of the diagnostic categories falls within the range of the predicted. The one category in which the mortality rate even approaches the upper limit of the range of predicted rates is in the Cerebrovascular accidents. Several factors may account for this.

Contributing Geographic/Demographic Factors

Franklin Medical Center's communities, many of them rural in nature, have a higher geriatric population than the national average. Emergency transportation services are largely volunteer-staffed. The distances traveled to transport patients to the medical exceeds fifty miles in many cases; thus, time becomes a major obstacle to early intervention. The medical center's location near the crossroads of a major interstate highway and a busy state highway also results in heavy usage of the Emergency Room by travelers in need of medical attention whose medical histories are unknown.

Results of Preliminary Record Review of Cerebrovascular Accidents

Eighteen (18) Medicare beneficiaries admitted in 1986 died of this diagnosis. Sixteen (16) died while hospitalized and two died after discharge in nursing homes. The range of predicted

164 HIGH STREET, GREENFIELD, MASSACHUSETTS 01301 TELEPHONE (413) 772-0211

mortality rates (HCFA) is 18 to 47%: Franklin Medical Center's actual mortality rate is 43% (HCFA). Although no reporting errors are found in that specific HCFA data, Franklin Medical Center chooses to offer the following information and comments specific to that category. The breakdown in ages of these benficiaries is as follows:

90 or over	8
80-89	4
70-79	3
60-69	3
	18

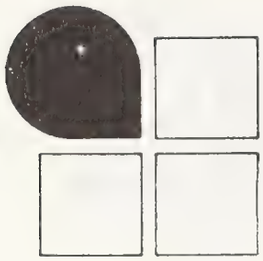
- Of these 18, six were found at home unconscious, had been for an unknown length of time and were admitted in critical condition.
- There were two patients' families who requested that no heroic measures be initiated.
- Two (2) patients had not been seen by local physicians but appeared to have other underlying conditions impacting the severity of the admission.
- Five patients had been admitted to Franklin Medical Center within the past 12 months; ten had not and for three there was no information available to indicate prior hospitalization here.
- All 18 patients had multiple other medical conditions which contributed to the severity of the last admission.
- These included high blood pressure, heart irregularities, congestive heart failure, and history of previous stroke.

In summary, Franklin Medical Center appreciates the opportunity to review and comment on the HCFA data and will continue its present pattern of reviewing all deaths, regardless of payor class. The medical staff quality assurance program regularly reviews all aspects of patient care to ensure that quality and appropriateness meet the high standards of the medical center.

Sincerely,

Ann McIntosh, M.D.

Ann McIntosh, M.D.
Chairman
Medical Staff Q.A.



Glover Memorial Hospital

October 23, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, DC. 20201

Dear Dr. Roper:

Thank you for the opportunity to respond to the selected mortality information of Glover Memorial Hospital Medicare patients in 1986. The efforts shown by HCFA to improve the system and allow comments prior to publication is appreciated.

The report was reviewed in detail and the following are significant comments regarding the data:

1) Quality of Care is a prime concern in all patient care activities and is addressed in an ongoing basis by Quality Assurance Committees and studies to enhance and educate our health care professionals

2) All Glover Memorial Hospital deaths have been previously reviewed at a monthly Medical Review Committee, by the Chief of Medicine with appropriate recommendations and follow-up, if deemed warranted

3) The fewer the number of Medicare admissions, the less reliable are the statistics

4) MassPRO, the Massachusetts Medicare Review Organization reviews for quality of care on an ongoing basis.

   Results of reports:

   January - April 1987
   100% of all cases reviewed met the quality standards

   April - July 1987
   90% of cases reviewed had no quality issues

148 Chestnut Street Needham Massachusetts 02192 (617) 444-5600

5) Validation of 1986 Mortality Data - Discrepancies found in data:

1. Incorrect age - Two cases
2. Incorrect sex - One case
3. Incorrect date of death - One case

6) Although the mortality rates for Glover Memorial Hospital were within acceptable norms, 33 cases were selected for review based on HCFA data.

Two diagnostic categories with predicted High mortality rates were selected for review:

a) Sepsis
b) Trauma

Two diagnostic categories with predicted Low mortality rates were selected for review:

a) GI disease
b) Orthopedic

Seventeen cases fell into the above categories and review findings were:

100% of the deaths, were patients who had at least one comorbidity or pre-existing condition.

In addition, sixteen cases did not fall into HCFA selected categories and were all reviewed. The findings are as follows:

50% of all patients were DO NOT RESCUSCITATE patients, and
62% of all patients had at least one comorbidity
75% of all patients had previous hospital admissions within six months

In conclusion, no patterns regarding quality issues were revealed by the review of 33 charts by Quality Assurance staff and Physicians.

Glover Memorial Hospital appreciates this opportunity to review and respond to the HCFA information, and will use the report as another tool in our efforts to educate and improve Quality of Care for our patients.

Sincerely,

Frank Niro III
Administrator

GODDARD
MEMORIAL
HOSPITAL

909 Sumner Street
Stoughton
Massachusetts 02072
(617) 344-5100

Robert A. Johnson
President

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21201

Dear Sir:

Goddard Memorial Hospital is pleased to have received its statistics from HCFA regarding its mortality rate for the 1986 year.

Obviously, we are pleased to see that our mortality rate is within the range of predicted mortality rates for the diagnostic categories. However, although it is reassuring to see where we stand relative to other hospitals, it does not give us any sense of complacency. We are aware that certain factors of which we have no control, may contribute to this, and it could be that if other criteria were utilized, some of the statistics might not be as favorable.

We have have taken a sample size of all categories and reviewed in detail each of these deaths. The cases we analyzed did not present any problems. However, we would like to call to your attention the category of metabolic/electrolyte disturbances. We find that in several instances we identified that the cause of death was not the metabolic/electrolyte disturbance but this was the presenting complaint when the patient arrived at the hospital. The end result was due to the basic underlying disease such as cancer, cardiovascular disease or end stage renal failure. The DRG system that prevails now makes it somewhat confusing to the physician to understand the way diseases are coded and thus we take issue with the documented cause of death.

It is the policy of this hospital's Quality Assurance Department and the clinical departments to review all deaths monthly. However, during the past year we have, in some departments, started a preliminary screening by the Quality Assurance Department. If there was no obvious problem with the outcome or demise, i.e., such as terminal cancer, the death was not reviewed in detail unless there was some particular problem complicating the underlying disease. Other deaths were critically evaluated and discussed at the service meetings.

In compliance with JCAH recommendations and to improve patient care in this hospital, we have in the last twelve months initiated an occurrence screening program. The occurrences are reviewed and recommendations are discussed at departmental meetings. The minutes of departmental and Medical Staff Committee meetings are forwarded to the Quality Assurance Department. The issues are discussed at the monthly meetings of the Patient Care Assessment Committee, a Peer Review Committee, and the decisions of this Committee are forwarded to the specific department or service for implementation.

The mission of this hospital is to provide quality health care to all those who enter this facility. This is accomplished and monitored by Peer Review through the Patient Care Assessment Committee, Department Meetings, Medical Staff Committees including ad hoc Peer Review Committees and a program of continuing medical education.

The activities of the Quality Assurance Department are reported monthly to the Executive Committee of the Medical Staff and quarterly to the Board of Trustees. This vertical intergration insures a collaborative effort by all those involved in the delivery of health care.

Thank you for your attention.

Very truly yours,

Robert A. Johnson
President

Hahnemann Hospital

1515 Commonwealth Avenue, Brighton, MA 02135 (617)254-1100
Managed by Community Care Systems, Inc.

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
6325 Security Blvd.
Baltimore, Maryland 21207

RE: Medicare Provider #220120

Dear Sir:

It is with pride and pleasure that we provide you with the attached narrative summary as requested by you.

This narrative summarizes our hospital's ongoing committment to high quality patient care. Specifically we have documented for you our process of review with regard to mortality rates here at our hospital.

We hope that this information will be both informative and useful in your overall review process.

Should you need additional information, please feel free to contact my office directly.

Sincerely,

David M. Laplante
Chief Executive Officer

cc: Helen Reed

DML/sjj

Hahnemann Hospital

1515 Commonwealth Avenue, Brighton, MA 02135 (617)254-1100
Managed by Community Care Systems, Inc.

RE: Medicare Provider #220120

The Hahnemann Hospital places a great deal of emphasis on the quality of care we provide to our patients. The care given is continually reviewed to maintain the high standards our institution has established.

A comprehensive record review was conducted of all deaths to determine if any significant patterns existed, with none detected. The mortality data for our institution fell well within the range of the predicted mortality rates. The only exception was the trauma category. The sample size used for calculation was based on one single case; therefore, with an unstable sample size, the finding cannot be validated.

The ongoing review of deaths is conducted on a monthly basis by both physician peer review and a quality assurance monitor. All findings are reported back to the appropriate individuals and/or departments. These results are reported quarterly to the governing board. We are compliant with all regulatory suggestions and requirements for outcome monitoring.

The major focus for all activities of review is to satisfy our hospital's main objective of high quality patient care.

HAVERHILL MUNICIPAL (HALE) HOSPITAL

140 LINCOLN AVENUE • HAVERHILL, MASSACHUSETTS 01830 • 617-374-2000

Please include the attached with the published Mortality Rates.

HAVERHILL MUNICIPAL (HALE) HOSPITAL

140 LINCOLN AVENUE • HAVERHILL, MASSACHUSETTS 01830 • 617-374-2000

October 26, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
P.O. Box 26684
Baltimore, Maryland, 21207

RE: Mortality Statistics - Hospital I.D. # 220041

Dear Dr. Roper,

We wish to thank HCFA for the opportunity to review this data. We have spent a great deal of time within the Administration and Medical Staff assessing this model.

Our immediate findings were with certain inaccuracies within the data base. While in themselves the inaccuracies are not of major consequence, collectively we feel this raises doubts about the validity of the entire data base.

The Hale Hospital's data was not completely valid in the following areas: age, dates of service, and diagnostic categories. After making adjustments for the data, the Hale Hospital still is well within the anticipated ranges in each diagnostic category as established by HCFA. However, we are concerned about the subjective interpretation of these mortality rates and feel the general public will use them as a correlary to a specific institution's quality of care.

We would strongly caution the public and HCFA not to make this generalization. Mortality rates in hospitals are often influenced by many factors, none of which, are related to quality of care. For example, in our particular community there is an extreme shortage of Skilled Nursing Facilities. Many of our patients spend months awaiting placement and expire before being actually placed. Of the patients admitted to the Hale Hospital from Nursing Homes, 48% expired within 72 hours of admission. These elderly care factors have an impact on our mortality rates, otherwise our rates would be exceptionally low, and in many cases, below the beginning part of the anticipated ranges. Many hospitals dealing with these same issues may find their mortality rates above the anticipated ranges. Their communities could develop a lack of confidence through their subjective interpretations.

We feel strongly that our hospital provides quality care and urge HCFA to reconsider its position in releasing this data, which by itself, is no indication of quality.

Sincerely,

Thomas K. Sager, Administrator

TKS/gs

Henry
Heywood
Memorial
Hospital
XXXXXXXXXX
XXXXXXXXXX

October 27, 1987

William L. Roper, M. D.
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dear Doctor Roper:

I am pleased to present the following written comments on the planned release of Hospital Mortality Rates by the Health Care Financing Administration (HCFA). In particular, my comments are directed to the data for the Henry Heywood Memorial Hospital, although comment relates to the development of the Range of Predicted Mortality Rates.

Obviously, without knowing the specific formula by which the predicted mortality rates were computed, I cannot comment about their accuracy. However, I feel constrained to point out that some of the ranges are so broad as to be suspect. For example, a range of 0-100%, for gynecological disease, or 1-33% for severe trauma, really has little meaning.

Nevertheless, in order to conduct a meaningful review of the data for our hospital, I arranged for an in-depth review of four diagnostic categories, Cancer, Low Risk Heart Disease, Severe Acute Heart Disease, and Renal Disease, the actual mortality rates for which fell above the median of HCFA's range of predicted mortality rates.

Among the significant findings from our view was that there were no discrepancies between the HCFA data and the hospital's records. Of great significance, however, was the finding that 50% of the mortalities reported for our hospital were among patients 80 years of age and older. While the cause of death identified in the HCFA data corresponded with the diagnostic category in each case, we identified the fact that most of these elderly patients suffered from a number of other, complicating ailments. Of course, this is not uncommon among people of such advanced age. We feel that this is certainly an important consideration for any one who chooses to review our mortality data.

Sincerely,

Jordan M. Cohen
Acting Administrator

JMC/tnt

242 Green Street Gardner, Massachusetts 01440 Telephone: 617/632-3420

HILLCREST
HOSPITAL

165 TOR COURT
PITTSFIELD, MA 01201
(413) 443-4761

October 24, 1987

William M. Roper, M.D.
Administrator
Health Care Financing Administration
Hospital Mortality Information
Baltimore, Maryland 21207

Dear Sir:

We have reviewed our mortality information which HCFA intends to make public in December. We note that our mortality rates for all measured diagnostic categories show no outliers, and, in fact, show a low mortality rate in all categories.

We would like to draw HCFA's, and the public's, attention to the fact that this information is more indicative of a hospital's case-mix in 1986 than it is of quality of care at the facility.

First of all, logically, the diagnostic categories selected for review are high risk categories of disease, and might bear a higher than predicted mortality rate without being in any way a measure of the quality of care: for example the categories of Cancer and Urologic Disease.

It would be very possible for a tertiary care facility to have a higher than predicted mortality rate for Cancer, since many patients are referred to these facilites for treatment. It would also be possible for a community hospital to have a higher than predicted mortality rate, given the return to the community following treatment at a tertiary care facility, and an admission locally while the patient is in the final stages of the disease. Particularly in this diagnostic category, it would be difficult anyway to equate a higher than predicted mortality rate with a quality issue.

And, in the category Urologic Disease, we suggest that Massachusetts mortality rate will be higher than other states. Massachusets has been identified as having a higher than would be expected rate of genito-urinary cancer, particularly in the western part of the state. Again, higher than predicted mortality would not necessarily indicate a quality issue.

We would suggest that statistics drawn from generic quality screens used by PROs would be more valid information for public evaluation of quality of care of an institution.

Sincerely

Eugene A. Dellea
Administrator

Office of the President
HOLDEN HOSPITAL
Boyden Road, Holden, MA 01520 (617) 829-6721

October 27, 1987

Mr. Harvey Brook
Health Care Financing Administration
6300 Security Boulevard
Meadows East Building
Room 2D2
Baltimore, Maryland 21207

Re: Hospital Mortality Data
Holden Hospital, Inc.
Provider #220034

Dear Mr. Brook:

The Health Care Financing Administration (HCFA) mortality data for Holden Hospital for calendar year 1986 has been reviewed and evaluated.

The report indicates that a total of 71 Medicare patients died within 30 days of admission. This figure includes 57 patients who died while inpatients at this hospital and 14 patients who expired after discharge. Based on a review of the HCFA report by our Medical Records Department, we have identified errors in the number of patients reported as dying after discharge. The corrected number should read 58 patients expiring while inpatients, 12 dying post-discharge, and one patient dying after transfer to another hospital. The records in error are listed in Attachment I.

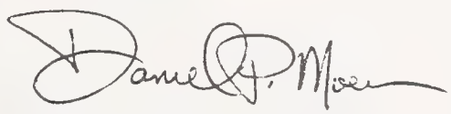
Holden Hospital is a community-oriented institution with a strong commitment to quality care for all patients. The hospital's favorable position with regard to the predicted mortality rates is further evidence of this commitment. We are obviously pleased with this performance. Holden Hospital has a comprehensive Quality Assurance and Utilization Review process in place for all of the services provided to our patients. As part of this process, Peer Review of all patient deaths occurring at the hospital is conducted to ascertain the quality and appropriateness of care that has been rendered in these cases.

However, despite our favorable overall mortality rate experience, there are limitations to the current methodology which HCFA itself has recognized and which should be clearly stated, particularly given the planned public access to this data. Specifically, those accessing the data should be aware that such key factors as severity of illness or stage of illness are not taken in consideration. This could distort an individual hospital's rate and infer a quality of care problem which does not exist. To illustrate, at Holden Hospital, each of the 15 cancer cases listed as mortalities represented patients in the terminal stage of their illnesses. Here one could argue that no deaths were unexpected.

In summary, I feel strongly that those with access to mortality data should be aware of its severe limitations before making crucial judgments as to the quality of care rendered by any individual institution.

Thank you for the opportunity to review and comment on this data prior to is publication.

Sincerely,



Daniel P. Moen
President

enc.

ATTACHMENT I

Holden Hospital: 1986 HCFA Mortality Data
Reporting Errors

ID Number	Diagnostic Category	Comment
[redacted]	CA	died in hospital not post-discharge
[redacted]	CE	died at Worcester Country Hospital

HOLYOKE HOSPITAL, INC.

HANK J. PORTEN
President

575 BEECH STREET
HOLYOKE, MA. 01040-2296
PHONE 534-2500

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Gentlemen:

After carefully reviewing the list of mortality figures pertaining to Medicare patients treated at Holyoke Hospital in 1986, we have determined that our actual mortality rates are well within HCFA's predicted range. In none of the cases were we identified as being a high or low "outlier."

Nevertheless, we have several concerns over the data and its possible misinterpretation. Holyoke Hospital recognizes that consumers have a legitimate right to obtain accurate information on the quality of care available in their community. The problem is that mortality rates by themselves do not necessarily reflect on the quality of care in an institution, and can, in fact, be quite deceiving.

At Holyoke Hospital, our quality is monitored in every department. Our Medical Staff, through our quality assessment program, reviews <u>all</u> patient deaths on a monthly basis with the objective being the verification that appropriate care was provided and that treatment did not contribute to any patient's death. We have extensive training programs in place and are continually monitoring our systems and medical equipment to ensure they function properly.

While we are well within all the predicted ranges HCFA refers to, we do wish to address three "high risk" diagnoses, in which the hospital fell slightly above average. These include the following:

1. <u>Cerebrovascular Accidents</u> - of the 29 deaths in this group, all were expected to succumb to their disease either because of a sudden fatal event (intracranial hemorrhage) or advanced age (average age = 83 years) with comorbid conditions.

2. Severe Chronic Heart Disease - of the 31 cases listed, 26 patients died of severe congestive heart failure plus end-stage cardiac disease with diabetes and renal disease.

3 Renal Disease - of the six deaths listed, all had chronic renal disease and three had simultaneous acute myocardial infarctions.

All these cases serve to point out some of the defects in the analysis. HCFA has adjusted the statistical evaluation for age, but unless the older age groups are broken down further, the results reported can be misleading. Most of the patients at Holyoke Hospital are over 65 years of age and an increasing percentage are over 80 and even over 90 years of age.

Another factor which is not considered is the socio-economic status of each patient. Our elderly patients are often very poor, live alone and are debilitated and malnourished. The results of these conditions are usually not measured even by a severity index. HCFA alludes to this and we agree it would be very helpful.

Although HCFA does "not recommend the use of the information by itself to make judgements about the quality of care in an individual hospital or to make comparisons among hospitals," this is in fact what will actually be done with these numbers. Disclaimers such as this will be ignored (as they usually are) and people will be making important decisions based on erroneous information.

In closing, might we add that the American Hospital Association and other organizations, including the Joint Commission on Accreditation of Hospitals, are investigating methods of evaluating hospital quality that rely on measures other than mortality rates. Holyoke Hospital looks forward to the results of these efforts.

Very truly yours,

Hank J. Porten
President

HJP/n
Medicare Provider #220024

HUBBARD REGIONAL HOSPITAL
340 Thompson Road
Webster, Mass. 01570
Telephone (617) 943-2600

Certified Mail P 537 200 029

October 20, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Attention: William L. Roper, M.D., Administrator

Dear Doctor Roper:

RE: Hospital Mortality Statistics - 1986
Hubbard Regional Hospital, Medicare Provider #220025

We have reviewed the above-mentioned data as presented to us on September 21, 1987. We believe that there are several discrepancies which should be corrected.

1. The mortality rate of 33% attributed to the diagnostic category entitled, EY-Ophthalmologic Disease, is incorrect. The patient in question had died as a result of Respiratory Failure. Therefore, please adjust this item to 0%.

2. Twelve (12) of the deaths listed in the sampling occurred after the patient was discharged from the hospital.

It is our hope that you will, in the public release of information, make clear to the public that this information on its own is not a complete measure of the quality of care at an individual hospital. The use of this information by itself to make judgments about the quality of care in an individual hospital is inaccurate. There are many other complex issues such as severity of illness, unrelated causes of death as compared to the condition of the patient while under treatment at the time of discharge, management of the patient at home or in a post-acute care facility, some or all of which may incorrectly attribute causes of death to the hospital.

(continued on page 2)

Hubbard Regional Hospital is committed to an ongoing Quality Assurance Program which is designed to objectively and systematically monitor and evalute the quality and appropriateness of care rendered to each patient. Both clinical and administrative staffs monitor and evaluate the quality and appropriateness of patient care and clinical performance and further resolve identified problems. This information is reported to the governing body to assist it in fulfilling its responsibility for the quality of patient care.

Hubbard Regional Hospital will continue to provide the best possible care that is achievable to all of its patients.

Very truly yours,

Richard L. Cunningham
Administrator

jbn

HOSPITAL = 220025 HUBBARD REGIONAL HOSP WEBSTER MA

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	728	15 %	10 TO 17 %
CA - CANCER	38	37 %	12 TO 41 %
CE - CEREBROVASCULAR ACCIDENTS	23	30 %	15 TO 52 %
EY - OPHTHALMOLOGIC DISEASE	3	0 ~~25~~ %	0 TO 100 %
GC - GASTROINTESTINAL CATASTROPHES	20	15 %	6 TO 41 %
GI - GASTROINTESTINAL DISEASE	77	6 %	3 TO 15 %
GU - UROLOGIC DISEASE	39	3 %	1 TO 21 %
GY - GYNECOLOGIC DISEASE	5	0 %	0 TO 100 %
HL - LOW-RISK HEART DISEASE	52	4 %	1 TO 14 %
HM - SEVERE CHRONIC HEART DISEASE	57	28 %	15 TO 38 %
HS - SEVERE ACUTE HEART DISEASE	31	61 %	26 TO 60 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	29	17 %	5 TO 36 %
OP - ORTHOPEDIC DISORDERS	39	0 %	0 TO 17 %
PN - PULMONARY DISEASE	71	24 %	14 TO 35 %
RN - RENAL DISEASE	3	33 %	2 TO 82 %
SE - SEPSIS	8	25 %	10 TO 70 %
TR - SEVERE TRAUMA	13	0 %	1 TO 40 %

THE HUNT HOSPITAL

75 LINDALL STREET
DANVERS MA 01923
(617) 774-4400

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

To Whom It May Concern,

In the course of reviewing the Health Care Financing Administration's (HCFA) mortality information about our Hospital we found the following discrepancies in the mortality data: eight additional high risk cases and one additional low risk case. These differences do not, however, significantly effect either the Hospital's actual mortality rate or where the Hospital falls within the range of predicted mortality rates.

We would like to point out for the record that the HCFA data should not in itself be the only measure of the quality of care provided by a hospital. We would like to emphasize that the data is to be used only as a useful tool for further evaluation.

We would also like to emphasize that in order to continually deliver quality care to each patient, Hunt Hospital has in place an ongoing quality assurance program which includes an effective mechanism for monitoring all disciplines involved in patient care.

Very truly yours,

Edward F. Kittredge

Edward F. Kittredge, FACHE
Administrator

EFK/ec

affiliated with HCA Management Company

JORDAN HOSPITAL, INC.
SANDWICH STREET, PLYMOUTH, MASSACHUSETTS 02360 / TELEPHONE (617) 746-2000

RICHARD W. BLAGBROUGH, D.M.D., Chairman

PETER A. CHAPMAN, President

October 28, 1987

Mr. Harvey Brook
Health Care Financing Administration
6300 Security Boulevard
Meadows East Building
Room 2D2
Baltimore, MD 21207

Dear Mr. Brook:

The purpose of this response is to share our use of the mortality data released and to share our current program of quality assurance. There is difficulty in assuring the accuracy of the data as it includes deaths after discharge and includes only Medicare patients. However, after review, we find the results within the reasonably expected range.

Although we are well within all expected mortality rates, it is to be understood that mortality rates, by themselves, do not measure quality. Quality of care at Jordan Hospital is of the utmost concern to the hospital's governing board, management and medical staff. There are comprehensive, ongoing review mechanisms in place in the hospital which lead to prompt investigation to determine if problems exist. When quality problems are identified, corrective action is taken immediately.

We have an effective quality control program designated to enhance patient safety, promote appropriate utilization of resources and reduce the probability of preventable, adverse clinical outcomes. We track compliance with standards of care and we monitor adverse patient events that are not a natural consequence of a patient's disease, condition or procedure.

"Generic quality screens" have been implemented hospital wide to identify unnecessary or inappropriate care. In accordance with JCAHO, there is continuous monitoring and evaluation of high risk and frequently performed diagnostic and therapeutic interventions. We combine review of outcomes of care through the use of occurance screens (e.g., deaths) and review specific quality indicators (e.g., contrast media reactions in radiology). Mortality review of every death at Jordan Hospital has long been a part of this comprehensive program with in-depth peer review of care prior to an unanticipated death to examine all aspects of the appropriateness of care provided.

All of these reviews are conducted to identify adverse trends, to focus and evaluate specific problems, to encourage productive communication among professional staff, to examine the quality of care from the patient's perspective, and to satisfy accreditation, certification and reimbursement requirements. Most of all, these reviews are conducted to remedy deficiences in patient care for which corrective action can be instituted.

Along with the comprehensive internal monitoring system, there is a thorough, ongoing quality review by MASS Peer Review Organization as mandated by Congress.

These comparisons of actual and predicted mortality rates are being used to suggest area to be assessed by the hospital and its medical staff to see if a quality problem exists. Although useful for that purpose, there are some limits to this methodology.

HCFA's statistical study adjusts for principal diagnosis, presence of selected complicating illnesses, patient sex and age, previous hospital admission during the previous 12 months, and whether patient was transferred from another hospital. The model does not include measures of severity when admitted, whether patient was transferred from a nursing home, whether patient had a terminal illness, or patient's psychological state or general health status. Although the model has been improved, the ability of the model to detect differences in quality has never been evaluated.

There are numerous internal and external methods of evaluating hospital quality being developed by Jordan Hospital, the Joint Commission on Accreditation of Healthcare Organizations, the American Hospital Association, and others that rely on measures other than mortality rates. We look forward to the results of these studies in helping us assure that high quality of care at Jordan Hospital continues.

Sincerely,

Peter A. Chapman
President

PAC:SL:jd

cc: Asher Kramer, Vice President of Fiscal Services
Sherry Lamade, Medical Records Administrator

FEDERAL EXPRESS

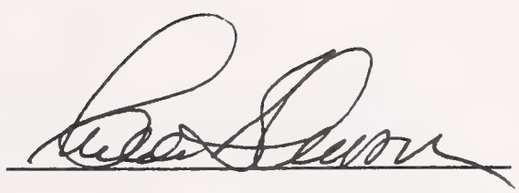
J. B. Thomas Hospital

15 King Street Peabody, Massachusetts 01960
(617) 531-2900

COMMENTS ON THE HCFA MORTALITY DATA

BY
J.B. THOMAS HOSPITAL
15 KING STREET
PEABODY, MA 02155

SHELDON B. ARONSON
PRESIDENT



J. B. Thomas Hospital

15 King Street Peabody, Massachusetts 01960
(617) 531-2900

J.B. Thomas Hospital places as its number one priority, a continuous, hospital wide commitment to quality patient care. This commitment is evidenced in a written Quality Assurance Plan with specific goals and purposes, which is overseen by a Department of Quality Assurance, a Patient Assessment Committee, the Accreditation Committee and the Medical Staff Advisory Board.

The purpose of the Quality Assurance Program is to improve patient care through ongoing objective evaluation of services rendered at J.B. Thomas Hospital. The program is an organized system developed to (1) provide for the continuous monitoring and evaluation of important clinical aspects of patient care, (2) identify opportunities for improving patient care, (3) identify and resolve problems that have an impact on patient care and clinical performance, and (3) monitor potential risks and hazards.

The Quality Assurance activities of the hospital are a function of both the medical staff and the hospital departments/services. These activities include both direct patient care services and patient oriented support/ancillary services.

The Medical Staff is responsible for setting professional standards of care; for monitoring care to assure it meets the standards; and for taking corrective action when the care does not meet the standards.

Hospital Department/Services are responsible for monitoring and evaluating the quality and appropriateness of care provided; for assuring that the monitoring is ongoing; and for documenting all phases including problem resolution.

The long term objectives of the Quality Assurance Plan are to improve patient care, enhance clinical performance, and reduce or eliminate unnecessary risks and hazards within the hospital by, among other things: Assisting Department Heads and committee chairmen to (1) Identify priority problems that may compromise the quality of patient care; (2) Assess objectively the cause, scope, and priority of the identified problems; (3) Implement corrective actions when necessary; (4) establish methods to monitor corrective actions for desired results and (5) maintain a system to document all activities and results.

Over the past few years, Quality Assurance activities at J.B. Thomas Hospital have been expanding to account for such changes as advances in technology, implementation of new State regulations and integration of risk management concepts, improvement in patient care as a result of monitoring and evaluation activities, and revised Joint Commission for the Accreditation of Hospital Standards.

Results of Quality Assurance activities are reviewed at monthly department meetings and at monthly Quality Assurance Committee meetings.

In each department, indicators specify the patient care activities, events, occurrences and outcomes that are to be monitored and evaluated in order to determine whether those aspects of patient care conform to current standards of appropriateness and quality. The establishment of these indicators will never end and implementation of new indicators will be constant. These indicators include adequacy of discharge planning, medical stability at time of discharge, deaths, nosocomial infections, unscheduled returns to the Operating Room, trauma suffered in the hospital, delays or errors in diagnoses or treatments, and lack of adequate medical records documentation.

QUALITY CARE ISSUES RELATED TO HCFA MORTALITY DATA

As described above, J.B. Thomas Hospital's policies and procedures extensively outline measures taken to assure high quality patient care in the facility. In specific reference to the mortality data, J.B. Thomas Hospital reviews all deaths in the hospital, whether expected deaths or not, to determine if a problem existed. If there is any indication that a problem exists, a prompt investigation is undertaken. If a problem is indeed identified, corrective action is taken swiftly.

A note of caution is necessary regarding the HCFA data released. Mortality rates, by themselves, do not measure quality of care in any institution. Raw facts often do not reflect accurately the circumstances surrounding each death. For example, many deaths listed in the data are in fact "expected" deaths. For example, those may include patients who have "Do Not Resuscitate" (DNR) orders. The data does not include "severity" data, ie. How ill the patient was at time of admission: If they were transferred to the hospital from a nursing home; what treatment they received at home prior to their admission; or the patient's general psychological or physical health. Finally, the data only includes Medicare patients and only those Medicare patients who died within 30 days of their admission to the last hospital from which they received medical care in 1986.

This is the reason why extensive Quality Assurance and Peer Review programs exist. The data indicated here is a guide to hospital programs to help in their review of quality issues. The American Hospital Association,the Joint Commission on Accreditation of Hospitals and other agencies are investigating methods of evaluating quality of care that rely on measures other than mortality rates that can be used by the consumer as a more descriptive guide to quality of care issues. We look forward to the results of these efforts.

The Commonwealth of Massachusetts
Executive Office of Human Services
Soldiers' Home
91 Crest Avenue
Chelsea, Massachusetts
02150

MAURICE V. GORDON, Jr.
Commandant

October 16, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

RE: 1986 Selected Mortality Report

Dear Dr. Roper:

The Quigley Memorial Hospital in Chelsea, MA, maintains rigid standards of quality medical care which is closely monitored both internally, as well as by outside monitoring and regulatory agencies. The accredited status and licensure of our hospital is a testament to our facilities adherence to excellence in the delivery of health care services.

The internal mechanism for monitoring quality of care includes Quality Assurance, Utilization Review, Infection Control along with several other committees which actively participate in monitoring all aspects of our health care services, to assure the highest of medical standards in the treatment of all our patients.

As with all hospitals who treat Medicare patients, the Quigley Memorial Hospital, was a participant in the 1986 Mortality Report Study which was conducted by the Health Care Financing Administration (HCFA). This report sites the mortality rate for Medicare patients who were admitted with specific primary diagnostic categories during the 1986 calendar year.

In 15 out of 16 category areas under review, our hospital's mortality rate was substantially below the range of predicted mortalities. That is to say, that in 15 diagnostic categories we had fewer deaths than the Range of Predicted Mortality Rate regards as probable.

However, in one category area of the study of Cerebral Vascular Accident (stroke) we only had one Medicare patient in the 1986 review study with the primary diagnosis of CVA. Therefore, the report only sites one case, since this patient died the report shows a 100% mortality rate for this diagnostic category. The Range of Predicted Mortality for this diagnosis is as high as 97%.

Unfortunately, this report can be misleading and very ambiguous. For the report failed to site the following facts:

A. The patient who succumbed to the CVA was also suffering from acute congestive heart failure and pneumonia at the time of his death.

B. The patient was appropriately and conscientiously treated with the finest medical diagnostic and therapeutic care medically available.

C. Our hospital had another Medicare patient with a primary diagnosis of CVA in 1986. However, as medicare only selected patients, last 1986 admissions for the selected diagnostic review, this patient having been previously admitted in 1986, was not included in the sample review. Had this patient, who survived his stroke, been included in the study, our hospital's mortality factor would have been 50% which is 47% below the maximum allowed range.

The Quigley Memorial Hospital along with other hospitals throughout the state and across the country feel this report requires a better method of evaluating diagnostic categories because it is incomplete and not only is it a disservice to the hospitals, but the general public as well.

Our hospital's attempt to elaborate on this report will serve to more fully and comprehensively provide our patients, and the public in general, with the complete interpretation of the 1986 Medicare Selected Mortality Report.

Very truly yours,

Maurice V. Gordon, Jr.
Commandant

Enc.
/md

cc: George B. Smithy, M.D., Medical Director, Mass. Soldiers' Home
Silva Gerety, Asst. Supt. for Vet. Public Health, Mass. Soldiers' Home
Paul McNamara, Asst. Supt. for Fin. Mgmt., Mass. Soldiers' Home
M. Barbara Carney, Asst. Hospital Administrator, Mass. Soldiers' Home

Lawrence General Hospital

One General Street
Lawrence, Massachusetts 01842
(617) 683-4000

COMMENTS ON HCFA MORTALITY DATA

The medical staff and administrative leadership of Lawrence General Hospital have reviewed HCFA's 1986 mortality data. As HCFA's statistical model cannot be replicated internally, it is impossible to verify the accuracy of the findings or validate the expected ranges. Review of individual deaths on the case listing, however, did identify eight cases in which the date of expiration was erroneously recorded. Of the 294 deaths identified by HCFA, these eight cases represent a 3% error rate. This raises the possibility that we will find additional inaccuracies when we analyze the data further. Whether the error rate would be greater or lesser for other variables could be questioned.

Flaw In Death Rate Methodology

We believe the methodology of selecting certain factors to predict ranges of mortality is seriously flawed. It has become universally agreed that severity of illness impacts greatly on both patient outcomes and utilization of resources. However, these data do not use a severity of illness methodology which has been tested and generally accepted in the field.

Incomplete Statistical Indicator

It is important to emphasize that the data are incomplete and reflect only the Medicare population. Furthermore, by only recording mortalities and ignoring all the other patient outcomes, these data are not a comprehensive measure of hospital performance. They may serve as statistical indicators, but are not an evaluative tool.

Excellence in Patient Care

Lawrence General Hospital and its medical staff have traditionally been committed to excellence for all its patients. The commitment begins with exhaustive screening of the credentials of applicants to the medical staff. On a continuous basis, a department, staffed by professionals and advised by physicians, coordinates the efforts of medical, nursing, technical and administrative staff to constantly review the quality of patient care. The medical staff clinical departments and committees

review all facets of medical practice, of which mortality data are but a small part. The reviews utilize pre-established clinically valid criteria, applied on a case-by-case basis. The charts of all patients are reviewed to assure that medical management is timely and appropriate. Deviations from the expected are carefully reviewed and, when necessary, education and/or other forms of intervention are initiated. Results of these reviews are used in the evaluation and privelege delineation of all caregivers, a biannual process which allows Lawrence General to maintain its standard of excellence.

Excels In External Review

A recent review by the Joint Commission on Accreditation of Healthcare Organizations found the quality review program not only met, but exceeded the standards for quality review activities. Additionally, reviews by outside agencies, such as the Massachusetts Peer Review Organization (PRO), are continuously evaluating the care given on a case-by-case basis. Their findings substantiate the level of excellence of the patient care we provide.

Distinguishing Features

As the Level II Trauma Center for central and eastern Merrimack Valley, and as a large community hospital operating the most comprehensive heart disease program among eight (8) hospitals, Lawrence General attracts a disproportionate number of seriously injured or compromised patients with greater risk of imminent death. In addition to the Trauma Center, the Hospital's comprehensive emergency services include Advanced Life Support Service serving eight (8) communities, 24-hour Emergency Department, a Walk-In Center, and advanced heliport facilities. Lawrence General maintains one of the busiest emergency departments in the state with more than 54,000 patient visits annually.

The Market Area

Lawrence General Hospital has 406 beds and bassinets and is the fifth busiest community hospital in Massachusetts. LGH is a private, not-for-profit acute care hospital offering a wide range of medical and surgical services. It is part of the Lawrence-Andovers Regional Health System and is governed by an 18-member Board of Trustees. Established in 1875, Lawrence General serves the communities of Lawrence, Methuen, Andover, North Andover, Bradford, Boxford, Salem, N.H., and other communities in the

Merrimack Valley and southern New Hampshire. For more than a century LGH has been committed to providing medical care for all the residents of its surrounding communities. This commitment is reflected in the charity services it provides to indigent patients each year. In the last fiscal year, more than $750,000 in charity services were provided.

Hospital Memberships

Lawrence General Hospital is accredited by the Joint Commission on Accreditation of Hospitals; is licensed by the Division of Health Care Quality of the State Department of Public Health; and is a member of the American Hospital Association, the New England Hospital Assembly, the Massachusetts Hospital Association, HealthFront Alliance, and Voluntary Hospitals of America-Massachusetts.

CHARLES F. JOHNSON
PRESIDENT

Lawrence Memorial Hospital
of Medford



170 Governors Avenue
Medford, Massachusetts
02155
617-396-9250

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Finanacing Administration
c/o Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

We appreciate the opportunity to comment on the Health Care Financing Administration's mortality statistics for our institution for 1986. The data indicates our aggregate mortality rate of 12% (1) is on the low side of the expected rate of 10-37%. It might be noted that within the category CANCER (23% of all our deaths) our mortality rate of 33% likely reflects the fact that many medicare beneficiaries return to their community hospital for the terminal phase of their illness, often after earlier treatments at tertiary care centers. They seek, at this juncture, care - not cure, which we ably carry out.

Our judgement is that an important determinant of mortality is age, and that future refinements of the methodology take account of the differences between mortality outcomes in the deciles 65-75, 75-85, and 85-95.

Sincerely yours,

Charles F. Johnson, President

Edward P. Butler, M.D., Chief of Staff

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(1) - See technical comments

LEOMINSTER HOSPITAL

October 26, 1987

Medicare Provider # 220094

William L. Roper, M.D., Administrator
Department of Health and Human Services
Health Care Financing Administration
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

Attached for your review are Leominster Hospital comments regarding HCFA generated mortality information for Medicare patients treated in 1986. Please let me know if I can provide additional information to further clarify the statistics.

Sincerely,

JM Carlson

John M. Carlson
Executive Vice President and COO

JMC/jpr
ref.bd10.26

attachments

Hospital Road
Leominster, MA 01453
(617) 537-4811

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

COMMENTS ON THE HCFA MORTALITY DATA

LEOMINSTER HOSPITAL, LEOMINSTER, MASSACHUSETTS

DATE OF VERIFICATION

The data issued by HCFA indicate a total of 943 Medicare patients were admitted to Leominster Hospital. Of these,114 patients died within 30 days of admission. Of these, 91 died while still a patient of the Hospital, while 23 died after discharge.

Our own records indicate that 1,467 Medicare admissions occurred in 1986. We have no way of verifying whether the number of Medicare patients treated at Leominster Hospital from the HCFA data is correct.

Our own records also indicate that of the 114 Medicare patients who died within 30 days of admission while still an inpatient, 22 were still alive at the time of discharge. (please note applicable corrections on the HCFA patient listing). It is impossible to determine the percentage of the 22 patients dying after discharge who were in fact, alive, as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

INTERPRETIVE REMARKS

- "Actual" mortality rates for Leominster Hospital in the 16 major diagnostic categories do not approach the upper range of predicted mortality rates in any single line item.

- Of the principal diagnoses supplied on the HCFA listing, five were incorrect. (see attached).

- From the "date of death" column three were incorrect (see attached). On page four, approximately half way down, patient [redacted] actually expired at the nursing home on the day of discharge - not at Leominster Hospital.

- One patient's date of death was the date of discharge 1/10/87, not 12/22/86 (see page 1).

Leonard Morse Hospital

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Attn: William L. Roper, M.D.
Administrator

Dear Dr. Roper:

In all of the categories, the Leonard Morse Hospital's actual mortality rate falls within the predicted range. The hospital's response to the HCFA data has been to review the records of the patients in certain diagnostic categories to better determine the quality of care by admitting diagnosis.

HCFA's data indicated that 182 patients died within 30 days of their last hospital admission. Of these, nine patients died after discharge from the hospital. The total number of admissions in the identified categories was 1,525. Therefore, a mortality rate of 12% was calculated.

The initial review of 89 cases in seven categories has demonstrated that there were an average of 1.5 comorbidities or complicating diseases in each case with as many as four in some cases. In other words, approximately 89% of the patient's records reviewed reflected other disease processes along with the reason for admission. The figures are presented in such a way that a prospective patient can not possibly be helped in selecting or rejecting a given hospital as a safe setting for treatment of his illness.

There are clarifications or explanations of the data that more accurately describe some of these numbers. The most vivid example is that of ophthalmologic disease (EY). The admission diagnosis (coding) placed four patients in this low risk category. One of these patients died. The patient's admitting diagnosis was an acute infectious process on the skin surrounding the eye requiring acute care intervention. The disease did not contribute to this patient's death and was not connected with ophthalmologic surgery or chronic eye disease. This was the last known diagnosis in the hospital as the patient subsequently requested to remain at home. The cause of death was a cerebral vascular accident (CVA).

Affiliated with the
Tufts University
School of Medicine –
New England
Medical Center

67 Union Street
Natick,
Massachusetts
01760
(617) 653-3400

This patient had long suffered chronic renal failure, diabetes, and congestive heart failure. All of these diagnoses, including the cause of death, are considered in a high risk category. If the patient had subsequently been admitted and expired, the cause of death would be in the high risk group. The predicted mortality range for ophthalmologic disease is 0 - 94%. The hospital's actual rate (25%) is apparently a factor of a small number of patients, one with concommitant high risk chronic diseases, and does not necessarily reflect quality of care.

Another example that emphasizes care should be taken in the interpretation of the numbers was in the orthopedic disorders category. Two patients were admitted with fractures caused by cancer of the bone and were very ill. They are in the same grouping as osteoporosis and sprains of the joints. Their deaths should not quickly be interpreted as poor quality care for a simple diagnosis.

The intent of this hospital is to continue to review by diagnosis this mortality data, attempting to determine with greater accuracy the correlation of the reason for admission with the subsequent cause of death.

The review will be conducted by the Quality Assurance Department and medical specialties. Leonard Morse Hospital recently has combined the well-established Departments of Quality Assurance, Infection Control, and Utilization Review. Although not common, this team approach is practical from many standpoints, not the least of which is cross-training and consistent coverage. According to the literature, this integration has an increased potential for effectiveness.

Our professionals also provide Risk Management information and data for physician peer review, and management systems. The coordination and sharing of expertise contribute to potential problem identification and more timely responses, as well as demonstrating a committment to this segment of hospital care.

Review of deaths and their causes has been a cornerstone of Medical Education for many generations. The mortality data will be treated for what it represents, an opportunity to review mortality by disease category and evaluate quality.

Sincerely,

Janice B. Wyatt

Janice B. Wyatt
President

Lowell General Hospital LGH Varnum Avenue Lowell, Massachusetts 01854-2195 Phone (617) 937-6000

October 20, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Hospital Provider #220063

Dear Dr. Roper:

Thank you for affording hospitals with the opportunity of reviewing the 1986 Medicare mortality information before it is published. The actual mortality rates of Lowell General Hospital patients in the sixteen diagnostic categories is well within the range of predicted mortality rates presented in your model. I would like to submit a few comments on the accuracy of the data, the validity of the model, appropriateness of care, and a description of our hospital's efforts to ensure quality. We found a high degree of accuracy in the data submitted by the Health Care Financing Administration (HCFA) for the subjects of your study. We attribute this accuracy to the high standards we maintain for the submission of data to Medicare.

Two of the sixteen diagnostic categories were targeted for review: Metabolic/Electrolyte Disturbances and Pulmonary Diseases. These categories were selected because the mortality rates, while they were within the predicted range, were the only two diagnostic categories to have actual mortality rates higher than the predicted average rate. A total of fifty-four cases were reviewed. In 100% of the cases, the care was found to be entirely appropriate.

Some of the common factors that these patients share are as follows: The average age of patients in the Metabolic/Electrolyte category is 76 years of age and 81 in the Pulmonary Disease category. There were 90.7% of the patients who had at least one prior hospitalization at the Lowell General Hospital. More than half of the patients were transferred to our hospital from nursing homes. Eighty-one percent (81%) of the patients had documented serious complications and/or comorbidities, fourteen of which died from complications of cancer. In summary, this is an elderly population who have, for the most part, been in and out of the hospital because of multiple serious comorbidities and complications.

Lowell General Hospital LGH

TO: William L. Roper, M.D.
FROM: Robert A. Donovan
DATE: October 20, 1987
PAGE: 2

We share your concern for the quality of care for all patients. Several years ago, the Board of Trustees established a committee to monitor the performance of hospital and medical staff committees charged with the responsibility for reviewing the quality of patient care. In addition to our own internal quality assurance programs, we maintain a close working relationship with the Massachusetts PRO (MassPRO) who performs quality reviews on Medicare patients, some of which are included in this study, on behalf of HCFA. We have not had a single serious quality issue raised by the PRO for the period of time in this study; but, if we had, we certainly would respond in an appropriate fashion.

In conclusion, I sincerely hope that you will make it clear that the information contained in this study on its own is not a complete measure of the quality of care at an individual hospital. The model does not begin to address complicated issues such as severity of illness, which is essential in making judgements about the quality of care in an individual hospital, or to make comparisons among hospitals.

Thank you for allowing us to participate in this study.

Sincerely,

Robert A. Donovan
President/Chief Executive Officer

RAD:SPM:JDR

Ludlow Hospital



October 27, 1987

William L. Roper, M.D.
Administrator, Department of
Health & Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, MD 21207

Dear Dr. Roper:

Ludlow Hospital has received and reviewed the Mortality Data furnished by the Health Care Financing Administration and the following is our response to this information.

Out of a total of 491 patients included in the survey, 62 mortality cases were reviewed, giving rise to an actual mortality rate of 13%, well within the range of predicted mortality rates provided by HCFA.

Upon further review, results showed a 3% error rate in the overall survey, which was due to the fact that two (2) out of eight (8) patients having expired outside of the facility were listed as in-house patients.

Of all the diagnostic categories included in the HCFA data, the actual mortality rates of each disease entity were well within the range of predicted mortality rates furnished by HFCA.

Sincerely,

John P. Kirby
Executive Administrator

JPK/elm
cc: MHA

MARLBOROUGH HOSPITAL

October 27, 1987

Health Standards and Quality
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

To Whom It May Concern:

After careful review of H.C.F.A.'S. Medicare Mortality Data received by Marlborough Hospital, the following comments are being provided.

When reviewing the data, we found three cases which were in error:

Case #1 The patient was transferred to another acute care facility and therefore the death cannot be attributed to Marlborough Hospital.

Case #2 The date of death and discharge date was incorrect.

Case #3 Incorrect date of admission and discharge as being the patient's last admission.

It is important that we clarify certain issues regarding this mortality data compiled by H.C.F.A. The H.C.F.A. Medicare Mortality Data represents 989 Medicare patients admitted to Marlborough Hospital in 1986. This number indicates a singular admission although the patient may have had more than one admission during 1986. Of the 989 patients, H.C.F.A. identified 149 patients as having died at Marlborough Hospital, or within thirty days of discharge from Marlborough Hospital. Of the 149, twenty-four died outside of the acute care hospital setting. On further review of the patient's medical records, ten were identified as "Do Not Resuscitate". The remaining fourteen were reviewed for appropriateness of patient care management and no problems were identified with the care received while at Marlborough Hospital. Of the remaining 125 patient deaths, multiple debilitating conditions were paramount in their expirations.

Prior to the H.C.F.A. release, Marlborough Hospital did not have readily available statistics of deaths occuring after discharge. The availability of this additional information will be used to enhance the mortality review system at Marlborough Hospital. We will continue to utilize this in order to evaluate patient management so as to promote optimal patient care.

It is our belief that the statistical death rates do not confirm or deny quality patient care management. The statistical data are useful only to identify areas for more indepth review. The only accurate measurement of patient care management is individual review of the patient's clinical condition and management of it by the peer review process.

A comprehensive peer review system has been in place at Marlborough Hospital over the past several years. Mortality review is one of the multiple elements of this process.

The Marlborough Hospital Medical Staff, Administration and employees assist and support this peer review system to fulfill its strong commitment in providing quality patient care.

We appreciate receiving the statistical information from H.C.F.A. in order to aid us in the review and utilization of patient care.

Yours truly,

William C. Harvey

William Harvey,
Acting President and Chief Executive Officer

MARTHA'S VINEYARD HOSPITAL

BOX 1477 OAK BLUFFS MASSACHUSETTS 02557 TEL. (617) 693-0410

Medicare Provider #220123

October 27, 1987

Health Care Financing Administration
Health Standards Quality Bureau
Hospital Mortality Information
6325 Security Boulevard
Meadows East Building - Rm 2D2
Baltimore, MD 21207

Dear Gentlemen:

You have asked Martha's Vineyard Hospital to comment upon mortality data to be released to the public by your organization, Health Care Financing Administration in December 1987. Although the data is primarily statistical, it may have broad interpretation as one indicator of quality of care at Martha's Vineyard Hospital. After reviewing the data forwarded, it became apparent that we needed to respond in order to provide a clearer picture of the quality of care provided to our community. As an underlying premise, quality can only be evaluated through the process of peer review and not through statistical comparison.

Following the Joint Commission on Accreditation of Hospitals guidelines, Martha's Vineyard Hospital provides an ongoing process of checks and balances. This plan of review is documented in the Hospital's Quality Assurance Plan and is undergirded by service committee review. Accordingly, each department and major service area i.e. Intensive Care Unit, Emergency Room, have ongoing continuous quality monitors in place whereby all actions and their results are reviewed monthly.

For example, mortality rounds, which include all disciplines, review all deaths each month. Physicians and associated support disciplines review a deceased diagnosis prescribed treatment, interventions, the cause of death and analyze the clinical management of each patient. Every month each surgical procedure is reviewed to determine surgery was warranted. Medical rounds, occurring each week involve physicians and support disciplines review of clinical case management whereby diagnosis, treatment regimines and outcomes of care are reviewed. The Medical Executive Committee reviews all reports from service committees and departments and recommends any changes in practice necessary to assure that quality of care is maintained. The reports of the Medical Executive Committee and the reports from service committees and departments are reviewed by the Hospital's Board of Directors Quality Assurance Committee to determine if trends or problems have been identified and actions taken to resolve deficiencies. This Committee then reports to the Board of Directors. The Hospital has a process in place to review and maintain quality care.

Having identified the Hospital's comprehensive system of evaluation, we wish to address the specifics of the Health Care Financing Administration's data. It is noted the patient population number 382 while the Hospital had 663 Medicare admissions during this time period. The Health Care Financing Administration chose the last Medicare admission occurring that year. Of these 382 one-time Medicare admissions, 46 died within 30 days of admission. The mortality rate was 12%. The two highest categories were cancer and cerebral vascular accidents, 46% and 40% respectively. There were six patients who did not fall into any of the 16 categories due to the fact their admission diagnosis did not fall into the categories chosen by Health Care Financing Administration. Nine patients died after discharge, five at home, two in a nursing home, one in a convalescent home and one in another acute hospital. The age range 59-98 average age 80.5 years. Three cases were misclassified because the primary diagnosis was used but was not the cause of death. The classification of sepsis had a high percentage but reflected a small number of patients, clearly a statistical phenomenon.

The Hospital's analysis notes a 12% mortality rate. This is low as compared to the scale of 9-18% of the predicted mortality rate. Cerebral vascular accidents 40% mortality rate, although high, also carries a high mortality rate especially in the older age group. The mean age for cerebral vascular accidents at Martha's Vineyard Hospital is 80.3 years. Cancer's 46% mortality rate at Martha's Vineyard Hospital, although high, death was expected in all but one of 26 cases. Although these patients were terminal, their need for pain control and management of dehydration required admission to an acute facility. Appropriate clinical management measure were instituted in all instances.

In all cases reviewed, where death was an expected outcome; the patient and family were consulted and a plan of care was instituted to help the patient meet a peaceful death. Documentation and criteria for "Do Not Resusitate" status was met. For those patients able to return home, a discharge plan was developed utilizing the services of Hospice and the Visiting Nurses Association.

The Health Care Financing Data reflects admission diagnosis. Upon reviewing medical records often times there was found an underlying disease process which would place the patient in a different category. Mortality data would be 0% for these cases. For example, in the orthopaedics category the actual cause of death in the two cases was terminal cancer; in urology the actual cause of death was a cerebral vascular accident. It is important to note, if these patients were categorized according to their true cause of death the mortality rate would change downward.

Mortality rates for the community of Martha's Vineyard increase because mean age of the population is older. Moreover,

the small number of deaths relative to the small number of Medicare admissions yield statistical interpretations, which when computing a rate, elevates the rate numerical value yet has little bearing upon determining appropriate clinical management.

In conclusion, the overall mortality rate 12% falls in the lower range of the norm 9% to 18%. Of the 46 cases cited, 39 deaths were anticipated. The Hospital's Quality Assurance Plan provides for ongoing peer review monitoring and evaluation of all care provided to patients. This process of review substantiates a commitment to quality care rendered at Martha's Vineyard Hospital.

Sincerely,

David F. Federowicz

David F. Federowicz, ~~President~~
Martha's Vineyard Hospital

DFF:D

LAHEY CLINIC MEDICAL CENTER
41 MALL ROAD
BURLINGTON, MASSACHUSETTS 01805

ROBERT E WISE, M D
CHIEF EXECUTIVE OFFICER
CHAIRMAN, BOARD OF GOVERNORS

AREA CODE 617 273-5100
CABLE ADDRESS "LAHEYCLIN"

Medicare Provider # 220171

October 26, 1987

William L. Roper, M. D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D. C. 20201

Dear Dr. Roper:

The Lahey Clinic Medical Center is in receipt of your memorandum of September 21, 1987 presenting mortality information about Medicare patients treated here in 1986. I would like to comment on what I believe to be serious limitations of these data.

First, your memorandum states that the mortality information has been developed "using sophisticated statistical techniques, based on advice from a wide range of medical experts. . . . . The following brief discussion of the methodology used to develop the information may be of use to you." Unfortunately, however, no description is provided of the precise statistical methodology that was actually used, including the calculations for the "normal ranges". It is unclear whether or not these figures are based upon overall crude data collected or if the values were weighted to account for variances such as regional cost indexes. In addition, the method of weighting for co-morbidity is not described, which is an important factor for hospitals such as Lahey who routinely care for patients with high case mix indexes.

Obviously, the methods used to determine these data should be detailed enough to permit critical analysis. Based on the description of the methodology that is available it is probable that enough biasing of the data occurred so that comparing the data across hospitals on a national or regional basis would be meaningless. This deficiency severely limits the usefulness of this data as a means of educating the general public.

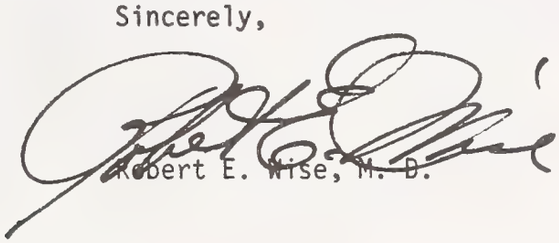
Second, the memorandum admits on page 3 that the statistical treatment is incomplete, specifically mentioning the fact that no correction has been made for severity of illness in any of the analyses. HCFA must realize that this "minor point" would be lost in any dissemination of complex information to the general public by means of press releases.

As a consequence any disclaimers cited by the HCFA would be lost while the sensationalism induced by striking differences in hospitals costs based upon these biasing factors would be presented to the public in a manner which is inequitable to the hospital sector and misleading to the general public.

Third, there is an unfair disclosure of personal identity inherent in the use of the six-letter identifier code for patients. It is not clear that these identifiers will be released in the forthcoming public release, but it provides an infair ability now in the public record to specifically identify individual patients (in either small or large communities. This represents a differential invasion of some patients' privacy depending solely upon the entire length of the patient's last name.

The Lahey Clinic wholeheartedly supports the concept of providing the public with sufficient knowledge to make well-informed decisions about choosing the source of their health care based upon quality. Based on the reasons cited above, it is clear that the data being presented fall short of this goal, and may well, in fact, be a disservice to the best interest of the patients we are dedicated to serving.

Sincerely,



Robert E. Wise, M. D.

REW:smc

Massachusetts
Eye and Ear
Infirmary

Office of the President

October 27, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

This is to confirm the 1986 Medicare mortality statistic for the Massachusetts Eye and Ear Infirmary cited in your letter and attachments of September 21, 1987. The following comments and corrections may be of additional help to you in tabulating your data:

Of the four patient deaths which occurred in the hospital, our records, corroborated by our physician review committee, indicate that all four patients were in the terminal stages of cancer. HCFA statistics had attributed a diagnosis of cancer to three of these patients, and one UN (all other conditions) diagnosis to the fourth.

Of the five patient deaths which occurred subsequent to discharge from the Infirmary, three are listed with a primary diagnosis of ophthalmologic disease, one with a diagnosis of cancer, and one with a diagnosis of pulmonary disease. In fact, all five patients were identified as having multiple health problems of a serious and chronic nature including severe heart disease, vascular disease, cancer, and in the patient listed in the pulmonary disease diagnostic category, incurable amyotrophic lateral sclerosis (Lou Gehrig's disease). It is an artificial connection to attribute these patients' deaths following their discharge from the Infirmary to the ophthalmic conditions for which they were admitted to our institution.

243 Charles Street
Boston, Massachusetts 02114
617-573-3000

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Massachusetts
Eye and Ear
Infirmary

Finally, it is clear that the quality of patient care at the Massachusetts Eye and Ear Infirmary is safe and appropriate, and our mortality rate for 1986 was almost without exception below the predicted mortality rate in all diagnosis categories. We never the less suggest that for future surveys, a refinement of the HCFA data is in order to include a sensitivity to the complicated nature of terminal illness, for example by indicating multiple diagnoses or any complicating factors which may be unrelated to the primary diagnosis requiring patient admission.

Sincerely,

Ephraim Friedman, M.D.
President

MELROSE WAKEFIELD HOSPITAL ASSOCIATION

A SUBSIDIARY OF
MELROSE-WAKEFIELD
HEALTHCARE CORP
585 LEBANON STREET
MELROSE MA 02176

RICHARD S. QUINLAN
PRESIDENT
617-662 7200

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Bureau
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen: Re: Melrose-Wakefield Hospital
#220106

An ongoing dedication to quality care has been a prime concern of Melrose-Wakefield Hospital. As a community hospital with greater than half of our patients participating in the Medicare program, we try to provide an environment of support for the elderly and the issues they are facing.

There are many factors that can impact mortality statistics, such as the severity of a patient's illness or hospital participation in a hospice program. While mortality rates are not necessarily an indicator of a lack of quality, the cases of all patients that have expired during this hospitalization at Melrose-Wakefield Hospital are reviewed by physician Quality Assurance Committees to insure that appropriate care has been provided. This mortality review and other quality assurance programs that are conducted within the clinical departments of our hospital have been designed with the objective of continuing to provide the best possible patient care.

While the statistics reflect positively on the performance of Melrose-Wakefield Hospital, and are reassuring to us as providers of quality health care, we remain deeply committed to an innovative and comprehensive approach to quality assurance.

Very truly yours,

Richard S. Quinlan
President

RSQ:eh



Mercy Hospital

October 27, 1987

William Roper, M. D., Administrator
Health Care Financing Administration
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper:

Please be advised that the mortality information released for Mercy Hospital has been reviewed in detail. Essentially, the information is correct, however, we did find some inaccuracies in the data presented for the year 1986.

The sixteen (16) categories identified by HCFA reveals that for the number of cases involved, Mercy Hospitals' actual mortality rate is well within the range of predicted mortality rates.

The one area which needs clarifications is diagnostic category HL-Low Risk Heart Disease. HCFA has identified 169 cases, actual mortality rate of 9% and the range of predicted mortality rate for the category is 3 to 10%.

Medical record review of these cases indicate that four (4) of the patients discharged, the codes on discharge are not necessarily the cause of death that occurred subsequently to discharge.

CASE #1 [redacted] Patient was discharged to home on 7/28/86. Codes used by HCFA are the same as recorded on the inpatient chart, not the reason for death.

CASE #2 [redacted] Patient was discharged on 11/20/86, diagnosis code 411.1, and died in the Emergency Room two (2) days later with cardiac and respiratory arrest. Codes used by HCFA are the same as recorded on the previous inpatient chart, not the reason for death.

CASE #3 [redacted] Patient was discharged to home on 10/21/86 and expired on 11/10/86. Again the codes used by HCFA are the same as recorded on the inpatient chart, not the reason for death.

CASE #4 [redacted] Patient was discharged to home on 8/30/86 and expired 9/23/86. The codes used by HCFA are the same as recorded on the inpatient chart, not the reason for death.

271 Carew Street. P.O. Box 9012 • Springfield. MA 01102-9012 • 413/781-9100
A member of the Providence Systems

As you can see, the data on these cases, do not reflect the actual cause of death which occurred after the patients' discharged from the hospital. Therefore, HCFA should reconsider the 30 day time period after discharge for reporting deaths, where the hospital may not even be aware that the death occurred, since it was outside the hospital.

Mortality review of all cases are reviewed by the respective departments of the Medical Staff. This review is conducted on a monthly basis by the Medical Staff and reviewed in detail at the respective Medical Staff Committees.

The Patient Care Assessment & Quality Assurance Department is responsible for assuring that the quality of care rendered in our hospital is of the highest caliber. The physicians are responsible for conducting peer review of any cases that are questionable and fall out of the occurrence screening process. Likewise, the Board of Trustees and the Hospital Management are clearly involved by reviewing the reports from the Patient Care Assessment and Quality Assurance on a monthly basis. They have indicated their approval of the process the Medical Staff, as the peer review component, continues to closely monitor the quality of care rendered at the Mercy Hospital.

Mortality review is only one of the many indicators the hospital monitors to assure that the patients admitted to the Mercy Hospital receive the highest quality of care that they expect to receive and that the hospital can efficiently and effectively render under the cost-controlled atmosphere.

Thank you for the opportunity to respond to HCFA's findings on Mortality rates as generated. We applaud the concern that HCFA has evidenced in assuring that the health care provided in our great country is of the highest quality.

Sincerely,

Sr. Mary Caritas, S. P.
President

SMC/im

Milford-Whitinsville Regional Hospital

14 Prospect Street • Milford, MA 01757

(617) 473-1190

10/27/87

HCFA Mortality Data - Deaths Occurring Within 30 Days of Admission

All data reviewed for accuracy. Deaths checked against Death Log with Diagnoses.

Data verified in all categories and proved to be correct except in one category. In Category HM-Severe Heart Disease, [redacted], we did not have an admission for this patient. It appears to have been listed incorrectly as it was given the same Patient ID Number as the patient above it with a different name, however the same age and date of admission and discharge. Check of admission register reveals no such patient. This would decrease the total deaths by one and also the count by 1 in category HM-Severe Heart Disease.

Kenneth J. Luke, President

SATELLITES AT:

PASTORELLO HEALTH CENTER
Central East Professional Building
397 E. Central Street
Franklin, MA 02038
617-528-2700

WHITINSVILLE HEALTH CENTER
18 Granite Street
Whitinsville, MA 01588
617-234-6311

HCA Management Company, Inc.



October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Re: HCFA Patient Mortality Information
Milton Medical Center
Provider No. 220108

Dear Dr. Roper:

We have reviewed the mortality statistical information for Medicare patients treated during 1986, which the Healthcare Financing Administration intends to publish in December, 1987, and have analyzed the data specific to Milton Medical Center.

Milton Medical Center has significant concerns about the use of such information as an implied measure of the quality of care provided in the nation's hospitals. While the data may help identify areas which warrant additional study or review, the limitations of the five characteristics used to predict mortality rates severly limit the applicability of the information to any general purpose. Several of the more prominent concerns are identified below.

In terms of the data specific to Milton Medical Center, the Hospital was well within the HCFA range of predicted mortality rates for all diagnostic categories except Renal Disease, which HCFA has classifed as a high risk category. However, it would be inaccurate and unjustified to imply that the relatively high mortality rate for Renal Disease patients was related to the quality of care provided while at Milton Medical Center for several reasons.

In the first instance, the volume of Renal Disease cases treated at the Hospital in 1986 was extremely low; of eleven patients classified as such by HCFA, seven died during the year. Of the seven death cases, the average age was 85 years, with actual ages being 98, 91, 88, 85, 84, 81, and 70. Five of the patients were admitted in extremis and were documented as "DO NOT RESUSCITATE" at request of patient and family. All of these

92 Highland Street Milton, Massachusetts 02186 (617) 696-4600

patients had multiple and serious underlying diseases that affected from one to four other body systems. One patient was a long-time resident of a nursing home and was admitted comatose and placed on the "danger list." This patient was terminal, and death came within four days.

The above analysis is probably true for the majority of death cases in other categories, as well. Since this data is expected to imply a measure of quality of care, we believe that a "severity of illness" indicator system should be used to indicate, at minimum, the relative condition of a patient at the time of admission, and the likelihood that imminent death is expected.

A second concern is that age should be included in the summary data releases to provide additional information to users of the data.

Another issue raised by the mortality data relates to patients who died after discharge. Since many patients go to acute hospitals, chronic hospitals, skilled nursing facilities, and intermediate care facilities, and death occurs there, it would seem that conveying this information to the public, who will read and interpret this summary data, would help them make better use of the limited information.

In addition, we wish to point out two errors on our hospital-specific case listing. Following are two cases listed as deaths after discharge who actually died in our hospital.

[redacted] HM 067 M died 01/01/86

[redacted] UN 087 M died 05/25/86

In summary, we believe that any individuals who use the data which HCFA intends to publish should understand its limited applicability, and that HCFA should attempt to improve the characteristics and methodology employed in the study before utilizing the data for any specific purpose.

Sincerely,

George A. Geary
President

GAG/eco



Nantucket Cottage Hospital
South Prospect Street / Nantucket MA 02554
617 / 228-1200
Medicare Provider Number: 220081

October 22, 1987

COMMENTS ON THE HCFA MORTALITY DATA

Our review of HCFA mortality data on Medicare patients treated at Nantucket Cottage Hospital during 1986 shows fourteen Medicare patients expired within thirty days of admission to this facility. Accounting for one error in a patient's date of death reported on this list (HCFA please see appendix A for error listing), two of the fourteen patients were alive at the time of discharge. Of the remaining twelve deaths occurring in the hospital, death was the expected outcome, or a highly likely outcome, at the time the patient was admitted in each case. The majority of the twelve inhouse deaths (nine) were admitted in terminal condition. Because there are no Medicare certified skilled nursing facility beds on Nantucket Island, which is located 30 miles from the mainland, many terminally-ill patients die here rather than in a nursing home. Of the remaining three inpatient deaths, in each case the patient presented to the emergency room in an acutely and severely ill state with a poor prognosis upon presentation.

In none of the diagnostic categories does the hospital's actual mortality rate exceed the predicted range. Since, with the small sample size, even one death would significantly inflate the mortality rate, one should be cautious in interpretating this data.

Nathaniel Bond
Administrator

NB/ame

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

New England
Baptist
Hospital

91 Parker Hill Avenue
Boston, Massachusetts 02120

617 738-5800

Telex (23) 4430116
Cable NEBAPTHOSP BOSTON

October 21, 1987

William L. Roper, M.D.
Administrator
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

We are writing in response to the Health Care Financing Admininstration's mortality information on Medicare patients who were treated at New England Baptist Hospital in 1986.

After a careful review of the statistics, we have discovered three errors in the data you sent to us. They are: [redacted] the correct date of death was 10/20/86, not 10/21/86; [redacted] was transferred to New England Deaconess Hospital; [redacted], the correct date of death was 12/08/86, not 12/31/86.

While we feel very strongly that surveys of these kind, are not, in themselves accurate measures of a hospital's overall performance, as a specialty/referral hospital with oncology and cardiology being among our medical specialties, it is encouraging to note that in most of the diagnostic categories our Medicare mortality rates are either well below or on the low end of the range of predicted mortality.

Sincerely,

Raymond C. McAfoose
President

New England
Medical Center Hospitals

Jerome H. Grossman, M.D.
President

1796 Boston Dispensary
1894 Floating Hospital for Infants and Children
1938 Pratt Diagnostic Clinic
1948 New England Center Hospital
1958 Rehabilitation Institute

The principal teaching hospitals for Tufts University School of Medicine

750 Washington Street
Boston, Massachusetts 02111
Telephone: (617) 956-5000

Hospital 220116

26 October 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper,

We welcome the opportunity to provide comments on the mortality analysis conducted by your Department on Medicare patients treated at New England Medical Center during 1986.

While we recognize, as you do, that mortality data in and of itself does not measure the quality of care at an individual hospital, we have used that data for its appropriate purpose as a screening tool to focus peer review efforts further when and where needed. Even though New England Medical Center's actual mortality rates were well within the predicted mortality ranges developed by the model for each of the sixteen diagnostic categories, we used the HCFA data from several categories to understand the causes of mortality and the reliability and validity of the model. After a brief comment on our hospital's own quality review initiatives, I will comment more specifically in two areas: 1) the quality of the model with regard to findings from our review of the mortality data in selected diagnostic categories, and 2) several recommendation for improvement of the model and the presentation of its findings to the public.

HCFA's quality review initiatives in this area of analysis parallel those of New England Medical Center and all academic medical centers in the country today. Our efforts in analyzing clinical outcomes have been an historic part of our mission. Our efforts have been further enhanced in the last several years by our development and implementation of integrated computerized quality control programs to further support the ongoing peer review conducted by all our clinical services. Such efforts underscore the commitment of our medical staff and governing body to continuously assess and improve the patient care we deliver. Mortality analysis already plays an important role in a rich and varied program of peer review conducted by all clinical services. Findings from this review are routinely evaluated with other quality control information to assess variations and trends. The implications of such variances and trends are not only assessed

and managed by the individual services but are evaluated further by the hospital's quality assurance coordinating body, the Care Review Committee, which is accountable through the President to the Board of Governors. The Care Review Committee promotes the effectiveness of all programs to monitor, evaluate and improve patient care.

A review of all mortalities in four selected diagnostic categories and in other selected cases did not reveal any significant quality of care variances or patterns of variances warranting further review.

Before I comment on the model used in your current analysis, we recognize that this model is much more refined than last year's. We also recognize that the Department's Office of Research acknowledges the fact that serious technical problems must be solved in case-mix measurement and resulting mortality analysis before we will be able to infer the quality of care from death rates or other outcome measures. Using such data to measure the quality of care requires assuming or proving that risk adjusted differences in outcomes result from differences in the quality of care. We agree with the conclusion advanced by Dr. Stephen Jencks, Director of the Office of Research, in his recent article, "Refining Case-Mix Adjustment, the Research Evidence," that this hypothesis is unproven and that the reasonableness of such inferences at the hospital level requires longer term research.

Recognizing this, I make the following comments which I believe affect the power of the model to produce valid prediction ranges. The model

- Attributes deaths to the diagnostic category associated with the principal diagnosis, when the cause of death may not have been related to the principal diagnosis.

- May not place patients in appropriate diagnostic categories as the model relies solely on the principal diagnosis.

    - A patient admitted with septic bursitis was placed in the orthopedic category because the model did not recognize his infection codes.

- Is not homogeneous with regard to the probabilities of death associated with the various diagnoses included within a category.

    - Diagnoses with much higher probabilities of death are grouped together with diagnoses having very low risk of death.

- Had a range of comorbidities which was not appropriately inclusive.

- Controls the number of comorbidities by controlling the number allowed on the Universal Billing Form (UB-82).

  - Only four comorbidities can appear on the bill. If the HCFA-defined comorbidities were present but did not rank high enough in a complex patient to appear in the top four, the comorbidities were not taken into consideration in the HCFA analysis.

    This situation has the effect of understating the mortality prediction ranges as factors which have a significant impact on the risk of death remain unaccounted.

Our recommendations for improvement of the model include expanding the UB-82 diagnoses fields to ten from five and expanding the 'significant comorbidities' listing to include additional specific comorbidities which have a statistically significant impact on the risk of death.

Finally, mortality data should be presented to the public only when there are 100 or more cases in a diagnostic category, otherwise one mortality can disproportionately skew the rate associated with the diagnostic category, and thereby increase the probability of misinterpretation by the public. NEMC had one mortality in the 18 case Ophthalmology category for a 6% mortality rate (with a predicted mortality range of 0-82%). The patient's clinical course was appropriately managed and the patient discharged medically stable following vitrectomy surgery. Fourteen days following discharge, the patient sustained an acute myocardial infarction and expired. While your Department will publish the number of cases treated on an inpatient basis (18) along with the 6% rate of mortality, the public's perception will rest with the 6% rate, a rate above the national norm of 0.4%. The public will in fact not be well served since this rate is based on too small a sample size and does not reflect outcomes of the cases in this category which are managed on an outpatient basis. Mortality data associated with small categories should be handled through another process, possibly through the PRO's monitoring efforts.

I have attached a chart of the inaccuracies found in the data submitted to us by your Department. The inaccuracies did not affect the mortality rates as published.

We look forward to the further refinement of the model as assuring the quality of patient care remains our highest mutual priority.

Sincerely,

Jerome H. Grossman

Jerome H. Grossman, M.D.
President

Incorrect HCFA DATA

Hopital 220116
Chart I

Incorrect HCFA DATA					DATA as Corrected by			
	Dx Category	ADM	D/C	DEATH		ADM	D/C	DEATH
[redacted] same patient	CA	6/4/86	6/13/86	6/13/86	[redacted]	6/4/86	6/13/86	6/13/86
[redacted]		6/4/86	6/13/86	6/30/86*				
[redacted]	OP	5/21/86	5/30/86	5/31/86	[redacted]	5/21/86	5/30/86	5/30/86
[redacted]	HL	11/10/86 (incorrect last admission)	11/18/86	12/4/86	[redacted]	11/20/86 (correct last admission)	12/4/86	12/4/86
[redacted]	HS	11/19/86	11/21/86	11/22/86	[redacted]	11/19/86	11/21/86	11/21/86

MA 83.3

_____* = INCORRECT DATA

New
England
Memorial
Hospital

5 Woodland Road
Stoneham, Massachusetts 02180
(617) 665 1740

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

Please find enclosed our response to the Mortality Rates for New England Memorial Hospital. In addition, we have corrected data on the print-out of the deaths for this hospital. Please note that changes were made to the patients' age, date of discharge, date of death and principal diagnosis.

If you have any questions, please call me at (617)665-1740 ext. 225.

Sincerely,

Catherine Maher Covert, RRA

Catherine Maher Covert, RRA
Director of Medical Records

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

NEW ENGLAND MEMORIAL COMMENTARY ON HCFA 1986 MORTALITY DATA
FOR MEDICARE BENEFICIARIES HOSPITALIZED AT NEMH

In late September 1987, New England Memorial Hospital (NEMH), as one of the nation's 6,000 community hospitals that treat Medicare patients, received from the federal government's Health Care Financing Administration (HCFA) a package of data concerning mortality (death) rates for Medicare beneficiaries hospitalized at NEMH in 1986. In reviewing and verifying these mortality data, NEMH focused its attention on ensuring the accuracy and proper interpretation of the information presented. In commenting on these mortality data, NEMH recognized its responsibility to maintain its long-standing tradition of high-quality health care for and accountability to the communities its serves.

These HCFA mortality rates apply only to Medicare patients who were admitted to a hospital in 1986. The mortality data are calculated using only those deaths that occurred within 30 days of the last admission of a Medicare beneficiary to a hospital during 1986.

NEMH used these HCFA mortality data, along with its regularly scheduled, internal review of patient mortality, to identify or suggest areas of further review. On a monthly basis, the NEMH medical staff conducts its own mortality review which includes an intensive examination of each individual patient case to determine the appropriateness of the care provided. Any problems identified during this review are given immediate attention, and appropriate, corrective action and/or education is undertaken.

NEMH statistically analyzed three (3) high-risk diagnostic categories: cancer; severe, chronic heart disease; and gastrointestinal disease. No quality-of-care issues were identified as a result of this analysis.

It is apparent from detailed examination of the individual NEMH patient cases involved that "do not resuscitate" (do not revive from apparent death or unconsciousness) orders were in place for fifty percent (50%) of the patients. A "do not resuscitate" order is issued for a patient by the attending physician only after consultation and discussion with the patient and family when the patient's condition is considered to be irreversible, terminal illness. A "do not resuscitate" order specifies that no heroic measures will be taken, but the patient will be kept as comfortable as possible. The analysis of NEMH patient cases identified by HCFA further revealed that the majority of the patients suffered from other complicating diseases which would make them sicker than the average patient. The average age of the NEMH patients involved was 79.4 years.

Additional review of NEMH patient cases that resulted in death has been completed by MassPRO, the independent peer-review organization which provides quality-of-care monitoring for Medicare beneficiaries under a contract with the HCFA organization. During MassPRO's review of these cases, no quality-of-care issues were identified as having any relationship

to the death of the patient. Thirty-six percent (36%) of these patients who died were receiving intensive medical services in a nonhospital environment prior to their hospitalization at NEMH.

New England Memorial is a hospital with a nearly century-old tradition of dedicated, compassionate service to the surrounding communities. That tradition is built on a commitment to providing health-care services of the highest quality, in a caring environment. Consistent with that tradition, NEMH developed and operates its own vigorous program of quality assurance--a program designed to ensure maintenance of the hospital's high standards of patient care and service. NEMH was one of the first hospitals in its area to implement an integrated, hospital-wide quality assurance program before it was mandated by government regulatory agencies. The NEMH quality assurance program reaches into all levels of the hospital's operations, including its board of trustees which plays an integral role in overseeing quality of care through its quality assurance subcommittee.

In conclusion, it should be pointed out that the HCFA mortality data do not indicate or identify areas in which a particular hospital provides "high-quality" or "low-quality" care, nor do they otherwise measure a hospital's performance. These data should be used principally by hospitals to identify or suggest areas for review and analysis. In the case of New England Memorial, these data review that the hospital's quality assurance program ensures the delivery of high-quality patient care and that the NEMH quality-of-care standard is well maintained.

Wolfgang von Maack

Wolfgang von Maack, President

Newton-Wellesley Hospital

Medicare Provider No. 220101

An Affiliate of NeWell Health Corporation
2014 Washington Street
Newton, MA 02162
(617) 243-6000

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir/Madam:

Newton-Wellesley Hospital appreciates the opportunity to comment on the mortality data published by the Health Care Financing Administration.

Newton-Wellesley Hospital has a comprehensive and effective Quality Assessment program which is designed to monitor and evaluate all aspects of patient care on an on-going basis. An integral component of the Quality Assessment program is the concurrent analysis and evaluation, by the Physician Chiefs of Service, of the often complex clinical situations that arise during a patient's hospitalization. The result of that analysis and evaluation is the early identification and resolution of all potential patient care related issues.

A statistical analysis of mortalities is also completed as part of the monthly Morbidity and Mortality Conferences. And while the statistical analysis is recognized as a useful educational tool, the actual peer review process is considered a more accurate indicator in the evaluation of the quality of care rendered.

The mortality data provided by HCFA is, after our review, accurate in that the patients listed were treated at Newton-Wellesley Hospital during 1986 (one correction to the data is appended).

In conclusion, again, we appreciate the opportunity to review and comment on the information prior to publication.

Sincerely yours,

Barry M. Spero
President & C.E.O.

BMS:cd

Enclosure

Newton-Wellesley
Hospital

An Affiliate of NeWell Health Corporation
2014 Washington Street
Newton, MA 02162
(617) 243-6000

Correction



MA 85.1

noble hospital

People Caring for People

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D.C. 20201

Dear Doctor Roper:

The Health Care Financing Administration (HCFA) mortality information for Medicare patients who died within 30 days of admission of their last admission in 1986 was reviewed by the staff of Noble Hospital. While reviewing the data several issues need to be taken into consideration. First and foremost, the mortality rate for all cases (14%) was clearly within the expected range (10-17%). In the category of sepsis, the study indicates that the Hospital fell below the range of the predicted mortality rate. In two categories, Low-Risk Heart Disease and Renal Disease, the study indicates that the Hospital exceeded the range of the predicted mortality rate. In all three categories the low number of cases result in a variation of one case affecting whether the Hospital fell within or outside of the predicted rate as determined by HCFA.

For the two high mortality outlier categories, all inpatient cases were reviewed to determine predictability of death and significant evidence was documented in all cases. In the Renal Disease category, 2 out of 6 cases were admitted from nursing homes and died within a short length of time in the hospital. This also occurred in 4 out of 13 cases in the Low-Risk Heart Disease category. In all cases, the medical record indicated that death was the expected outcome or death was a significant possibility at the time of admission. The majority of the patients had multiple secondary diagnoses and several readmissions to the hospital with progressive degenerative symptoms.

A review of attending physicians caring for these patients substantiated the fact that no adverse quality trends were identifiable. Six different physicians cared for patients in the Renal Disease category and 9 separate physicians treated the Low-Risk Heart Disease patients.

P.O. Box 870 ● 115 W. Silver Street ● Westfield, MA 01086 ● (413) 568-2811

Of the total number of mortality cases identified in these two categories, two cases in Low-Risk Heart Disease and one case in Renal Disease died after discharge from the hospital. Information concerning their deaths was not available during this review.

The HCFA data, as it relates to Noble Hospital, is at best an opportunity for the hospital to focus on quality assurance activities but under no circumstances should it be used as a basis for judging the quality of care.

Yours truly,

NOBLE HOSPITAL

Scott B. Bullock

Scott B. Bullock
President and Chief
Executive Officer

rmh

NORTH ADAMS
REGIONAL
HOSPITAL

A subsidiary of NORTHERN BERKSHIRE HEALTH SYSTEMS, INC.
Hospital Avenue, North Adams, MA 01247 (413) 663-3701

Bernard Shapiro, FACHE
President

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

We would like to include the following comments in the Health Care Financing Administration's upcoming publication of actual versus predicted mortality rates for North Adams Regional Hospital.

The Medical Staff and Administration of North Adams Regional Hospital, as part of its ongoing quality assurance and peer review activities, reviews the care of every patient who dies within our hospital or in the Emergency Department. This commitment predates HCFA's current attempt to apply external quality control measures to our institution and will continue as part of the important role of quality monitoring in our institutional setting.

It is imperative that the public recognize the inherent danger of using one statistical data element alone to draw conclusions about the quality of care at any institution. Specifically:

1. The HCFA data for North Adams Regional Hospital represents a very small mortality incidence in real numbers over a short time frame, one year. Statistical techniques tend to be reduced in validity when numbers are small and timeframes are short, as in the case of the NARH data. Consequently, we suggest caution based upon sample size.

2. The data includes deaths which occurred within 30 days of admission to a hospital. Given North Adams Regional Hospital's average length of stay of 10.21 days, the data on average accounts for deaths for 23.5 days after discharge. These deaths may or may not be related to admission.

3. The data does not adjust for case mix; i.e., hospitals which serve a large population of elderly or poor or high risk individuals may experience a higher mortality rate not due to

poor care, but instead due to the patients that they treat. North Adams Regional Hospital, for example, serves a population which is comprised of 17% elderly versus the 12% elderly population nationwide.

North Adams Regional Hospital and its Medical Staff, like all responsible health care institutions, welcome additional information which helps the important work of monitoring quality. However, the publication of one data element, mortality rates, out of the hundreds of indicators reviewed in a hospital every day, can legitimately be used only to raise questions which should then be answered through further study.

We at North Adams Regional Hospital intend to include the HCFA mortality statistics into our overall quality assurance monitoring system as part of our ongoing review process.

Thank you for the opportunity to share our views.

Sincerely,

Bernard Shapiro, President
North Adams Regional Hospital

Michael L. Gerrity, M.D., Chairman
Quality Assurance Committee
North Adams Regional Hospital

/r

NV HS
Norwood Hospital

800 Washington Street
Norwood, Massachusetts 02062
Telephone (617) 769-4000

TO: William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Department of Health and Human Services
P.O. Box 26684
Baltimore, Maryland 21207

DATE: October 26, 1987

FROM: Jeanne Morello
Senior Vice President, Operations
Norwood Hospital
800 Washington Street
Norwood, MA 02062

Provider # 22 01 26

RE: COMMENTS ON THE HCFA MORTALITY DATA

Representatives of Norwood Hospital's Medical Staff, Administration, and Quality Assurance Department have reviewed the Mortality Data for 1986, as presented in this report from HCFA. We wish to take this opportunity to comment and respond upon the figures presented. However, we encourage the public to approach any analysis of the numbers with the knowledge that where human lives, and deaths, are concerned, simple statistical comparisons are not sufficient tools to measure the quality of care which has been provided.

The HCFA Mortality Study reflects that Norwood Hospital's actual mortality rate for Medicare patients was below even the lowest predictable rate in five out of 16 diagnostic categories examined. In all other categories, mortality rates fell within the predicted range as determined by HCFA.

However, in the category code "HS" (Severe Acute Heart Disease) the mortality rate attributed to Norwood Hospital is 44%, which falls within the predicted range, but is higher than might have been expected based upon the hospital's own statistics. With this in mind, a physician review was undertaken to look at 48 patient records whose diagnoses fell within this category.

It should be noted that all hospital deaths (and deaths which occur within 30 days of discharge) are routinely reviewed by both our Quality Assurance Department and by a committee of the Medical Staff, in accordance with procedures and guidelines established by the Joint Commission on the Accreditation of Hospitals.

Of the 48 cases reviewed, all patients were found to have other serious diseases which severely compromised their ability to withstand an acute illness. Among the comorbid conditions listed were respiratory disease, coronary disease and diabetes. Eight (8) patients did not die directly from heart disease, but rather their deaths were caused by one of the following: sepsis (2-overwhelming infections), embolism (1-blood clot), ruptured aneurysms (2-burst major artery), and dissecting aneurysm (1-torn major artery).

Nine (9) of the 48 patients were admitted to the hosptial in cardiac arrest (clinically dead). Life-saving measures restored a heart rate temporarily, but these patients soon expired. It is important to point out that within the high risk category of "Severe Acute Heart Disease", a number of distinct and extremely serious illnesses are included beyond heart attack (acute myocardial infarction).

Throughout the hospital quality of care delivered to patients is objectively reviewed and evaluated on a daily basis by both the Medical Staff and hospital professional staff. This process, known as peer review, plays a major role in the hospital's Quality Assurance Program which encompasses every medical and ancillary department in or associated with Norwood Hospital.

Norwood Hospital is dedicated to providing the highest quality of patient care possible. This is our primary mission taking precedence over all others. We are confident that this standard is being upheld on a daily basis and in this pursuit of excellence in health care, there can be no "lowest common denominator".

Parkwood Hospital

ROBERT F. DAVIS
Executive Director

November 4, 1987

TO: H.C.F.A.
Health Standards & Quality Bureau

FROM: Utilization Review Department

RE: Mortality Information

In response to the release of the Hospital Mortality Rates by H.C.F.A., Parkwood Hospital and its representatives agree that all the cases involved fall within the range of predicted mortality rates. Verification of data in a case by case mix showed no errors. The deaths occurring after discharge were anticipated deaths due to their diagnosis.

All cases reviewed showed excellent quality of care, and appropriateness of care was validated by proper documentation by physicians in the patient's charts. Standards of medical care as documented in the Quality Assurance Program were evaluated and no quality issues were elicited from the review. Policies and Procedures are in place as part of our Quality Assurance Program to address hospital wide concerns and medical care and consumer concerns.

Sincerely,

Josephine Lafleur RN

Josephine Lafleur R.N.
Utilization Review Coordinator

Robert F. Davis

Robert F. Davis
Executive Director

JL/kpm

QCH

Quincy City Hospital
114 Whitwell Street
Quincy, Massachusetts
02169
(617) 773-6100

October 23, 1987

Quincy City Hospital
Medicare Provider No. 220067

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

The Medical Staff and administration of the Quincy City Hospital are pleased with the picture portrayed by the mortality information referable to the hospital released by the Health Care Financing Administration. The data reveal the dedication at our hospital to quality health care, especially as it relates to the care of the elderly. This is emphasized by the fact that our overall mortality rate, as well as the rate in each of the sixteen (16) diagnostic categories, falls within the anticipated range.

However, the brief time to verify and evaluate the data (we received our information October 7, 1987, twenty-one days before the October 28, 1987 deadline to reply) prevents total review. Even in the brief time allowed, we find that of the fifty-eight (58) cases which died outside our hospital, according to HCFA statistics, nine (9) actually died in the hospital.

Of the forty-nine (49) patients (13% of the total deaths) who expired out of the hospital, nine (9) were patients with malignancy who benefited with hospice care at their request at home. The remaining forty (40) patients were appropriately sent either home, nine (9) cases, or to nursing homes, thirty (30) cases, with proper discharge planning and support service arrangements.

The Quincy City Hospital Medical Staff, Nursing Staff and Administrative Departments are continually reviewing the care of our patients and especially their discharges in relation to appropriateness and planning to assure them that premature discharge does not occur.

Sincerely,

William P. Ridder, M.D.
Director of Medical Review

WPR/md

Salem
Hospital

81 Highland Avenue
Salem, Massachusetts 01970
Telephone (617) 741-1200

October 21, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, DC 20201

Dear Dr. Roper:

I am writing in response to the planned release of hospital mortality rates by the Health Care Financing Administration. My comments will be directed toward the value and limitations of the data as presented. Although the Salem Hospital data appears to be better than or within the predicted mortality ranges in all cases, I feel it is important to comment on the process.

- The HCFA model utilizes five patient characteristics in predicting an expected mortality range: age, sex, number of prior hospitalizations within the year, whether the patient was transferred from another hospital and whether the patient had other complicating illnesses. Other factors, which may have been very pertinent, such as health status on admission or the patient's stage of disease, were not included. This model has not been tested and it is not known if the characteristics used are reliable indicators of mortality. It would be plausible to envision an excellent hospital which would produce a poor pattern of mortality due to referral patterns or poor socio-economic conditions in their market area which negatively affect the general health status of their patients.

- The HCFA model groups patients within specific disease categories based on the principal diagnosis. The definition of the principal diagnosis is the condition which, after study, caused the patient to be admitted to the hospital. Therefore, a patient could be admitted for one condition but die from an unrelated illness and the death would be attributed to the category that includes the principal diagnosis. This could skew the mortality rates, particularly in categories with a low volume of patients.

- The HCFA model includes all deaths within 30 days of admission date. This means that deaths which happened outside the hospital and which are unrelated to the cause of hospital admission could be included in a specific disease category. For example, an orthopedic patient who was discharged following a fractured hip and, within the 30 day limit, died from a cardiac arrest would be counted as an orthopedic death.

- The detailed data presented for review is in a very "unfriendly" format, particularly for hospitals that do not have a hospital information system. In these days of increasing record reviews it would be beneficial to hospitals if HCFA would supply a full name and one patient identifier (billing number or medical record number) that coincides with the hospital's internal system to facilitate verification of the data. The format as presented will no doubt deter many providers from performing a thorough check for accuracy.

  Also, the deaths that occurred outside of the hospital are very difficult to track *and not* something to which a hospital usually has access, other than through their Tumor Registry. It will be even more difficult to verify this information.

The public should be very cautious about interpreting this data. As with most statistical studies, the mortality rates merely pose questions, they do not answer them. Conclusions about quality of service rendered should not be based solely on the mortality data. It is in the best interest of each and every hospital to provide efficient, effective care - quality care - and hospitals take many steps daily to ensure that this happens. The public should be assured that, in most cases, efforts in Quality Assurance are successful and hospitals do achieve these desired goals of quality.

Salem Hospital is pleased to have this opportunity to review and comment on the data prior to the public release of this information. We hope that the Health Care Financing Administration will consider our own and all other comments submitted prior to any future endeavors of this nature.

Sincerely yours,

Michael J. Geaney, Jr.
President

smh
SANCTA MARIA
HOSPITAL



799 CONCORD AVENUE • CAMBRIDGE, MASSACHUSETTS 02238 • (617) 868-2200

EXECUTIVE OFFICES

October 26, 1987

William Roper, M.D
Director, Health Care
Financing Administration
6326 Security Blvd.
Baltimore, Maryland 21207

Dear Dr. Roper,

Enclosed please find the comments of Sancta Maria Hospital regarding the Hospital Mortality Rates as reported by the Health Care Financing Administration.

We appreciate the opportunity to comment on this data prior to its release.

Sincerely,

Sister Mary Mark

Sister Mary Mark,
President,

Enc. (1).
SMM/kcr

SANCTA MARIA
HOSPITAL

799 CONCORD AVENUE • CAMBRIDGE, MASSACHUSETTS 02238 • (617) 868-2200

EXECUTIVE OFFICES

October 26, 1987

Comments on the Hospital Mortality Rates as Reported by the Health Care Financing Administration (HCFA)

The purpose of these comments is to qualify and put into context the HCFA mortality data presented to Sancta Maria Hospital.

ACCURACY OF THE DATA

No outlier cases - or cases which exceeded the predicted rate -- were reported for Sancta Maria Hospital; those cases included in the report fell within the range of predicted mortality rates in each diagnostic category. The reported data were reviewed and verified by the hospital's Quality Assurance Committee and were found to be accurate within the strict confines of the report. No data errors were noted. To verify the accuracy of the data, the hospital chose to review those mortality cases in the category "urologic diseases," where the range of predicted mortality rates was given as 2 - 19%. The hospital's mortality rate was reported as 16%. Specific comments related to the hospital's internal review of this category are included further below.

INTERPRETATION OF THE REPORT

For the purpose of interpreting these statistics, it is important to distinguish between the accuracy of the reported data and the appropriateness of using this data as a valid indicator of the quality of patient care provided by our institution. The reported mortality statistics are categorized by the principal diagnosis for which a patient was admitted to the hospital for acute episodic care. As such, they do not reflect the overall state of a patient's health or other prevailing illnesses which may, in fact, be the actual cause of a patient's death. Furthermore, HCFA data included deaths which occured within 30 days of hospital discharge, but the quality of care given outside the hospital -- a highly significant factor -- is not reflected by the statistics.

The HCFA statistical analysis will be most effective when assessed in conjunction with other factors known to have a profound impact on the eventual outcome of patient care measures, such as severity of illness, advanced age, psychological state of a patient, and whether or not a patient was transferred from, or to, a nursing home or other facility.

SPECIFIC CATEGORICAL REVIEW

Although no outlier cases were identified in any section of the HCFA report, Sancta Maria Hospital chose to review one entire category on an in-depth, individual case basis. (see attachment) In the "urological disease" category, HCFA reported eight deaths out of a total of 51 cases reviewed in the report. When these cases were individually evaluated by our Quality Assurance committee, it was found that seven of the eight patients died from conditions unrelated to the presence of urinary tract infection (the principal diagnosis) for which they were admitted to the hospital for acute care. For example, one patient admitted to the hospital for treatment of an acute urinary tract infection subsequently died at home of metastatic cancer ten days after hospital discharge. Several other patients were admitted from and discharged to nursing homes, including a 93 year old patient whose cause of death was again unrelated to the principal diagnosis of urinary tract infection. The case in which a patient's death was attributed to urologic disease was reviewed for appropriateness of care. The treatment this patient received while hospitalized was found to be consistent with standard medical practice.

In summary, no problems were identified that indicated inappropriate, inadequate or sub-standard patient care. No indication of premature discharge of any part of our patient population was found. In that the categorical review found the HCFA statistics to be to inconclusive in their ability to reflect actual patient care, the hospital will continue to further analyze the reported diagnostic categories, in an attempt to correlate the statistics, in some meaningful way, with quality of patient care.

HOSPITAL QUALITY ASSURANCE PROGRAMS

Sancta Maria Hospital is committed to ensure quality of care for all its patients. The hospital, and its medical staff, are subjected to constant review of patient care by the Massachusetts Peer Review organization (MassPRO). This intense review has not, to date, identified any significant quality issues with regard to patient care at Sancta Maria Hospital.

A comprehensive, multi-disciplinary Quality Assurance program continually monitors the quality and performance of our patient care services. The Quality Assurance Committee meets regularly, and, as a standing committee of the Board of Trustees, is comprised of hospital trustees, physicians and administrative

personnel. In addition, each medical staff department has an ongoing mortality/morbidity review program, where every patient death, and other categories of designated review, is evaluated according to pre-established criteria. Based on this review, the physician/chief of each department recommends for corrective action to improve quality of care when indicated. The multidisciplinary Concurrent Care Committee meets weekly to review the appropriateness of the care hospitalized patients receive.

Other systems are in place to monitor patient satisfaction, as well as the quality of non-medical hospital services. All patients, upon admission to the hospital, are clearly informed how to contact the hospital president, should they need to file a complaint, or question any aspect of care they receive while hospitalized.

SANCTA MARIA HOSPITAL

HCFA MORTALITY DATA

INDIVIDUAL CASE REVIEW

PATIENT	AGE	SEX	PRINCIPAL DIAGNOSIS	CAUSE OF DEATH	IN-HOUSE DEATH	NURSING HOME RESIDENT
A	86	F	Urinary Tract Infection	Metastatic Cancer	no	no
B	88	F	Urinary Tract Infection	Terminal Dysrhythmia	yes	yes
C	77	F	Urinary Tract Infection	Gangrene Complications	no	yes
D	79	F	Urinary Tract Infection	Sudden Death	no	no
E	92	M	Urinary Tract Infection	Probable urosepsis	no	yes
F	93	F	Urinary Tract Infection	Severe cachexia, terminal dysrhythmia	no	yes
G	87	F	Urinary Tract Infection	Dysrhythmia, gangrene secondary to occluded femoral artery	yes	yes
H	81	F	Urinary Tract Infection	Cardiac Arrest Gastrointestinal Bleed	yes	yes

MA 92.4

MICHAEL S. DUKAKIS
GOVERNOR

PHILIP W. JOHNSTON
SECRETARY

The Commonwealth of Massachusetts

Executive Office of Human Services

Soldiers' Home in Holyoke
Holyoke, Massachusetts 01040

AREA CODE 413
532-9475

JAMES K. KELLY
SUPERINTENDENT

October 20, 1987
Medicare Provider No. 220153

Health Care & Finance Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

In response to the Mortality Data received from HCFA 10-14-87,we wish to inform you that all statistical information identified was correct.

The Soldiers' Home in Holyoke wishes to clarify the data relating to the category Severe Chronic Heart Disease (HM) in which our facility's mortality rate is listed as 100%.

The Soldiers' Home in Holyoke was established in 1952 and consists of 259 longterm care beds, a 27 bed hospital unit and 50 bed domicilliary unit.

The purpose of the Soldiers' Home in Holyoke is to provide the highest quality of patient care that is optimal within achievable resources. The Soldiers' Home in Holyoke is an accredited facility by the JCAH, in both the longterm care and hospital section.

In the event a longterm care patient becomes acutely ill, this patient is transferred to the hospital unit. This is a situation in reference to case No. [redacted]

Both of these patients had histories of longstanding, severe heart disease. In the case of [redacted], the patient had been in the longterm care facility since 1981 and had suffered a CVA 20-years previously.

The attending physician transferred this 78-year old gentleman to the hospital unit for appropriate treatment. Mortality & Morbidity review conducted monthly as a function of the Medical Staff Quality Assurance Activities revealed that the patient had a co-morbid condition of Diabetes Mellitus, Kimmelstiel Syndrome and cardiomegaly. The patient also developed renal failure as a complication evidenced by his BUN of 112. The patient received approved treatment, however he expired on 2-29-86.

[redacted] was a 67 year old gentlemen who had been admitted to the longterm care section of the facility for supportive and maintenance care. The patient suffered from the comorbid conditions of a ten-year standing CVA, mitral stenosis with Congestive Heart Failure, and atrial fibrillation.

Mortality & Morbidity review on this patient found the death to be expected and directly related to the patient's deteriorating condition. All treatment was deemed appropriate by the Executive Committee of the Medical Staff during the review.

The Soldiers' Home in Holyoke maintains a comprehensive integrated Quality Assurance Program that evaluates in a systematic,ongoing manner the quality and appropriateness of patient care rendered, by all health care professionals in all clinical department and support care areas.

In conjunction with the Quality Assurance Program, the Soldiers' Home in Holyoke participates in a Patient Care Assessment Program mandated by the Medical Malpractice Act of 1986, Chapter 35, Massachusetts General Laws, enforced by the Massachusetts Board of Registration in Medicine.

This Patient Care Assessment Program evaluates on a continuing basis the quality of care rendered on a daily basis. Quarterly reports are submitted to the Massachusetts Board of Registration in Medicine for evaluation.

The Soldiers' Home in Holyoke is proud of the available facilities to the Veterans of Massachusetts. Our dedicated staff of physicians, nurses and administrative personnel have one goal - to provide the best services possible to veterans of all wars. We will continue to strive to provide the highest degree of quality care to all of our patients.

Very truly yours,

James K. Kelly

James K. Kelly
Superintendent

JKK/jm

SOMERVILLE HOSPITAL

230 HIGHLAND AVENUE · SOMERVILLE, MASSACHUSETTS 02143 · 617-666-4400

Normand E. Girard, *President*

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C. 20201

RE: Somerville Hospital
Medicare Provider #22-0004
Comments on the HCFA Mortality Data

Dear Dr. Roper:

The data we received from the Health Care Financing Administration (HCFA) indicate that a total of 145 Medicare patients admitted to Somerville Hospital in 1986 died within 30 days of admission. Of these, 125 died while still a patient in the hospital, and 20 died after discharge. Following review, we found that 129 died while still a patient and only 16 died following discharge. The record numbers for these four cases are attached.

In all diagnostic categories, the hospital's actual mortality rates fell within the ranges of predicted mortality rates. This performance occurred despite our designation as a "Disproportionate Share" hospital, indicating a large percentage of low income patients. Almost two-thirds of these patients were in the "high risk" categories. Of these, all but two also had at least one significant comorbid condition.

A review of three high risk categories verified that death was the expected outcome in 95% of the cases; was considered a significant possibility in 4% of the cases; and was considered unexpected or unpreventable due to the sudden development of a terminal condition in one percent. As indicated above, we verified that death after discharge occurred in 16 cases. In 12 of these, death was considered imminent. The likelihood of death as an outcome was unable to be verified in the remaining four cases.

Our review of cases identified by HCFA was readily accomplished because of the routine review of mortalities conducted by our Quality Assurance Department and Chiefs of Services in an effort to provide an optimal level of care to the community we serve.

Sincerely,

Normand E. Girard
President

NEG:cjz

attachment

Somerville Hospital
Medicare Provider #22-0004
Comments on the HCFA Mortality Data
Corrections to death after discharge data

HIC Number	Dx Category	Age	Sex	Adm. Date	Disch. Date	Date of Death	Princ. Dx
[redacted]	HM	060	M	12/9/86	12/24/86	12/24/86	4280
[redacted]	HM	083	M	10/30/86	11/13/86	11/13/86	4280
[redacted]	SE	089	M	10/7/86	10/16/86	10/16/86	03843
[redacted]	ME	098	F	9/6/86	9/8/86	9/8/86	2765

Southwood
Community Hospital

111 Dedham Street
Norfolk, Massachusetts 02056
Telephone (617) 668-0385

TO: William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Department of Health and Human Services
P.O. Box 26684
Baltimore, Maryland 21207

DATE: October 26, 1987

FROM: John Dalton
Senior Vice President, Operations
Southwood Community Hospital
111 Dedham Street
Norfolk MA 02056

Provider # 22 00 79

RE: COMMENTS ON THE HCFA MORTALITY DATA

Thank you for the opportunity to comment on the mortality information for 1986 about Medicare patients treated at Southwood Community Hospital.

Originally founded as Pondville Hospital, this facility was a pioneer in the research and development of cancer treatment modalities and in the training of oncology physicians. Today Southwood Community Hospital continues the tradition that Pondville began 60 years ago through The Cancer Care Center, a program which encompasses hospice care, radiation therapy, surgical oncology, mammography, physical therapy, support groups and monthly screenings.

This HCFA Mortality Study indicates that Southwood Community Hospital's actual mortality rate for Medicare patients fell below the lowest predicted rate in two of the 16 categories examined. In all other categories mortality rates fell within HCFA predicted ranges.

For the purposes of this commentary we undertook a review of four categories: Metabolic/Electrolyte Disturbances (ME), cases categorized as "Low Risk" (GI, GU, HL). We also examined all cases of patients who were reported to have died after discharge from the hospital.

In the first category (ME) we found that while the admitting diagnosis was for a metabolic disorder, none of the patients admitted under this category actually died from metabolic disturbances. Deaths, upon review, were found to be caused by cancer in 75% of cases, with the two remaining deaths attributable to acute myocardial infarction and severe liver disease, respectively.

When looking at the Low Risk categories of GI, GU, and HL, similar results were found. Half of these patients died as a result of their cancer, instead of the cause shown. The remaining 50% died of causes not indicated in the admitting diagnosis.

Cancer is nearly always a complex disease process. The course of a patient's disease may be marked by acute episodes of symptoms which constitute the immediate reason for hospital admission but which are, in fact, characteristics of the larger illness.

In those cases HCFA reports as having died after discharge, 20% were listed with incorrect dates for their last admission. These patients actually died in the hospital. Two-thirds of all out-of-hospital deaths were patients whose diagnoses included cancer. Four patients had cancer as the primary diagnostic category, two had been discharged to nursing homes, and two patients had been discharged home with Hospice Care services provided by Southwood.

Southwood Community Hospital is dedicated to meeting the needs of all its patients with the highest possible quality of care. Quality Assurance and Peer Review are important ongoing programs which monitor that care with standards and guidelines established by the Joint Commission on Accreditation of Hospitals.



David T. Hannan, President

October 27, 1987

Mr. Harvey Brooks
Health Standards & Quality Bureau
Health Care Financing Administration
6300 Security Boulevard
Room 2D2 Meadows East Building
Baltimore, Maryland 21207

Dear Mr. Brooks:

Attached is South Shore Hospital's comment on mortality data from our Hospital which HCFA intends to publish later this year. We appreciate HCFA's policy of also publishing provider interpretations and responses to the information.

Sincerely yours,

David T. Hannan

David T. Hannan
President and
Chief Executive Officer

DTH:mjd

Enclosures

55 Fogg Road, South Weymouth, MA 02190-2455
An affiliate of South Shore Health & Educational Corporation



David T. Hannan, President

1986 HCFA MORTALITY DATA DISCUSSION

South Shore Hospital is a not-for-profit, acute care community hospital licensed to operate 280 beds (189 medical/surgical, 32 intensive/coronary care, 30 obstetrical, and 29 pediatric/young adult) and 54 newborn bassinets. The Hospital provides a broad range of inpatient services and is a regional community health care resource for residents of its 20 town service area. South Shore Hospital's medical staff includes practitioners in most medical and surgical subspecialties. The Hospital's Medicare medical case mix index is 1.246 which clearly indicates the complexity and severity of patient health care problems which the institution treats.

South Shore Hospital supports the Health Care Financing Administration's desire to provide patients and the public with comparative information on the performance of individual hospitals. The Hospital, in general, is also supportive of the use of outcome measures of performance in health care quality assurance. The mortality data collected by HCFA however, represents a unidimensional perspective on the complex quality question in health care. Clearly, a more balanced assessment of any hospital's performance must include the analysis of many patient variables and multiple outcome measures. Factors such as the severity of a patient's illness at the time of admission, his or her age and the presence or absence of pre-existing or complicating conditions prior to hospitalization must be incorpoated in the assessment.

South Shore Hospital's actual mortality experience in total and in all 16 of the diagnostic categories examined is within HCFA's expected ranges. The Hospital interprets these findings favorably in light of the institution's high patient acuity experience. In its case by case review of the data, the Hospital determined that 91% of reported deaths were in high risk diagnosis as defined by HCFA. Additionally, 44% of those patients who died post-discharge had long standing chronic medical conditions and were discharged to nursing homes.

55 Fogg Road, South Weymouth, MA 02190-2455
An affiliate of South Shore Health & Educational Corporation

South Shore Hospital has made and will continue to make a major commitment to delivering quality patient care. This commitment is evidenced by a strong hospital-wide quality assurance program involving physicians, nurses and other direct patient care professionals from all clinical areas. The quality and continuity of care and services provided to all of our patients is continually monitored by a full time quality assurance professional staff against explicit practice standards developed by members of the medical staff and other clinical professionals at the Hospital. These practice standards are routinely and regularly reviewed for appropriateness.

South Shore Hospital appreciates the opportunity to comment on this material. We encourage health care consumers to make informed decisions based on accurate, reliable and complete information. Quality health care is a mutual goal for both consumers and providers and for that reason we must work together to ensure the availability of appropriate data collection and reporting systems so that truly informed decisions can be made.

S†ANNE'S HOSPITAL Corporation
795 Middle St., Fall River, Mass. 02721-1798 • (617) 674-5741

October 27, 1987

Dr. William L. Roper, Administrator
Department of Health & Human Services
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Thank you for this opportunity to respond to the recently released Medicare mortality data for St. Anne's Hospital. As an institution committed to providing and monitoring quality care, we appreciate your efforts to make such information available to the consumers of health services. The comments presented below relate first to discrepencies between HCFA's data and our own internal database, followed by general comments regarding the use and interpretation of mortality data for our patient population.

A. Discrepencies between HCFA and Internal Data Sets.

The following discrepencies were encountered upon review of our 1986 discharge data set along with detailed review of our death register:

1. HCFA reported 271 deaths out of 1726 total Medicare admissions, for an overall mortality rate of 16%. Internal data shows 346 deaths, including those that occurred post-discharge, out of 2562 Medicare admissions for a mortality rate of 13.5%.

2. According to our death register, four of the deaths identified as Severe Acute Heart Disease were miscoded (see attached). While heart disease may have been an underlying condition, it was not the primary cause of death as recorded by the attending physician. In addition, three patients actually died in another acute care hospital following transfer. These patients were transferred within 1-3 days of admission to St. Anne's and expired from 5-18 days later. Correction of these errors reduces St. Anne's mortality rate within this diagnostic category to 43%.

3. Three deaths identified as Renal Disease were miscoded (see attached). Again, while renal disease may have been an underlying condition, it was not the primary cause of death as recorded by the attending physician. Correction of these errors reduces St. Anne's mortality rate within this diagnostic category to 37%.

B. Use and Interpretation of the Data.

While HCFA made significant strides in its attempt to control for differences in patient characteristics across hospitals, caution is still advised before using the data in cross-hospital comparisons. HCFA's model does not yet include, for example, measures of severity (i.e., how ill the patient was on admission), or whether the patient had a terminal illness. As such, comparisons between hospitals with specialized programs for the terminally ill and those without such programs are not valid.

Along these lines, it is important to note that St. Anne's is a regional resource for comprehensive oncology treatment, with programs in both medical oncology and radiation therapy. The program draws patients from beyond our primary service area and receives a number of referrals from other acute care hospitals. It is significant that 95% of the cancer patients listed in HCFA's report were admitted in the terminal stages of their illness, many with DNR (do not resuscitate) orders. Approximately 25% were referred from other acute care hospitals for consultation regarding chemotherapy and radiation therapy, and for about half of these, the only admission to St. Anne's was at the time of their terminal event. As the cancer patients treated at St. Anne's are generally "sicker" than those treated at hospitals without similar facilities, direct comparisons of mortality rates or other indicators are clearly invalid.

In addition, it is important to note that the use of mortality data does not, in itself, provide a measure of quality, but is instrumental in guiding quality assurance efforts. Our quality assurance staff reviews patient records on a daily basis using many criteria, including mortality, that reflect current professional standards. In addition, physicians meet monthly to evaluate patient outcomes against standards of care that are in compliance with the Joint Commission on Accreditation of Hospitals (JCAH), the Peer Review Organization (PRO) of the Massachusetts Medical Society and other regulatory agencies. This rigourous mechanism of constant review and evaluation allows us to identify specific areas on which to focus more detailed review and to maintain the high standards of care that we constantly strive to acheive.

In closing, I again applaud your efforts to provide consumers with accurate and reliable information on quality of care, and hope that my comments help

to place the data in the proper context. As a representative of the hospital industry, I look forward to working with HCFA, JCAH, and other agencies in the further development of objective measures for quality care.

Thank you.

Sincerely,

Alan D. Knight, President

/dm

Attachment

[redacted]

ACUTE HEART DISEASE

Patient's Number	Admission Diagnosis	Final Diagnosis
[redacted]	MI vs. Aortic Aneurysm	Dissecting aortic aneurysm
[redacted]	Acute pulmonary edema, respiratory arrest	Pulmonary edema
[redacted]	Abdominal aortic aneurysm	Respiratory failure, ruptured aortic aneurysm
[redacted]	R/O myocardial infarct	ASHD with refractory CHF

RENAL DISEASE

[redacted]	Left pyelnephritis	1. Septicemia 2. Pyelnephritis
[redacted]	Dehydration, renal failure	1. CA of prostate 2. Uremia
[redacted]	Laennec's cirrhosis	1. Laennec's cirrhosis 2. Hepatic failure 3. Renal Shutdown

ST. ELIZABETH'S HOSPITAL OF BOSTON
736 Cambridge Street, Boston, Massachusetts 02135 (617) 789-3000

WILLIAM J. SKERRY
President

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

As you requested in your letter of September 21, St. Elizabeth's Hospital is providing the attached comments on the HCFA mortality data.

Corrections to the original data are provided in an addendum, with a notation that is is not for publication since it contains patient identification.

Based on the errors in the data, and in the difficulty in validating and interpreting them, we recommend that HCFA seriously reconsider publishing the information for public use. It is our strong belief that the public would be better served if the data release is limited to PROs, health service researchers and the hospitals for further investigation.

Thank you for the opportunity to comment. If there are any questions, please call Mrs. Marie Barry at (617) 789-2443.

Sincerely,

William J. Skerry
President

Enclosures

Hospital I.D.#
220036

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

ST ELIZABETH'S HOSPITAL OF BOSTON
736 Cambridge Street, Boston, Massachusetts 02135 (617) 789-3000

COMMENTS ON HCFA MORTALITY DATA

We have reviewed the 1986 Medicare Mortality report which HCFA has compiled for St. Elizabeth's Hospital. We commend HCFA for under - taking a process to develop quality measures, and support the effort to assure that the data developed are valid and correctly interpreted. We share HCFA's concern that the quality of health care be the highest achievable given the resources available, and recognize that the development of the Medicare mortality data is a first step in this process. We look forward to participating with HCFA and hospital organizations in developing measures that will be useful in assessing quality among hospitals.

In our response we address the following three issues:
- The difficulties we experienced in attempting to verify the data,
- The impact of our teaching and specialty programs on the mix of patients attracted to St. Elizabeth's Hospital, and
- The Hospital's Quality Assurance Program, which includes as one component physician review of all deaths.

Our attempts to understand the numbers lead us to believe that the largest problems in interpreting the data result from:
- Lack of information on patients who died after discharge, since those deaths could well be unrelated to the condition for which the patient was hospitalized and could have occurred during management of the patient at home or in a post-acute treatment facility (Please see Item 2, pg. 1,2).
- The inability to verify the data by comparing internal Hospital records with the limited information HCFA provided (Please see Item 3, pg. 2).
- The fact that the average patient age at death for these Medicare patients is 79.6 years. Mortality data for other age groups would obviously differ greatly (Please see Clin. Review, pg. 2,3).
- An apparent systems error which fails to consistently report the final 1986 hospital admission with which the death was associated (Please see Item 2, pg. 1,2).

ACCURACY OF THE DATA

1) In-hospital deaths. Each in-hospital death reported by HCFA is documented in our records, although our records differ in dates of admission or of death for nine patients. One of these patients was admitted and died in 1987.

2) Post discharge deaths. 15% of the deaths included with St. Elizabeth's Hospital data fall into this category of patients. In five instances, there was failure to record the last admission. By contacting physicians, we have verified 34 of the 41

post-discharge deaths included with our statistics. We have determined that two of these 41 deaths occurred in a chronic disease hospital, supporting our previous concern that it was not consistently the final 1986 hospital admission with which death was associated.

3) Verification of Total Medicare Beneficiaries and Mortality Percentages.
We are unable to verify these data from the limited information HCFA has provided. The data differ substantially. Our records identify 4433 hospitalizations for 2767 beneficiaries, 472 more than the 2295 beneficiaries HCFA tabulates for St. Elizabeth's Hospital. The HCFA methodology excludes patients hospitalized 30+ days before death, patients transferred to other hospitals, and all patients hospitalized during the year at St. Elizabeth's but assigned to another hospital to which they were later admitted. Our records document less than 12% of the 472 patients in the first categories. The remaining difference (14% of all Medicare beneficiaries hospitalized here) may be in this third category. However, we have no way to document either the number of patients in this category, or the disease categories in which they fall.

This inability to verify the numbers treated is critical. HCFA expresses the hospital mortality rate as a percentage of the number of individuals hospitalized, in total and by disease category. Since we cannot verify the number, we cannot verify the percentages.

4. Quality Implications. We applaud HCFAs intent to emphasize that this information alone is not a complete measure of quality of care at an individual hospital. It assesses the relationship between each of five important patient characteristics and the risk of death. However, data are not available to assess the relative risk of death associated with the stage and severity of the patient's illness, his/her general health status and psychological condition, and family support. It is essential to emphasize that the data are for Medicare patients only, and would be expected to differ for other age groups. Since the model is new and untested, there are technical problems to be evaluated and corrected. For example, while previous admissions during the year are included as a risk factor in the model, they would be more significant for patients who died late in the year than for those who died in the first few months, but with a history of admissions late the previous year.

ST. ELIZABETH'S HOSPITAL ROLE/CLINICAL REVIEW OF MORTALITY DATA.

St. Elizabeth's Hospital plays a major role in medical education and bio-medical research as a major affiliate of Tufts University School of Medicine. The Hospital offers a broad range of specialty and sub-specialty services, including referral programs in Cardiology/Cardiothoracic Surgery, Respiratory Disease, Neurology, Hematology/Oncology and End Stage Renal Disease, which attract high risk geriatric patients.

HCFA reports actual death rates for St. Elizabeth's Hospital to be within the "expected" mortality range, in total and for all disease categories.

It is significant, in interpreting the data, to note that:
- Our average Medicare patient age at death was 79.6 years.
- Of patients who died, 44% came through the Emergency Room, 9.5% were transferred from other acute care hospitals, and 28% were transferred from Nursing Homes. These groups of patients combined account for 82% of all Medicare deaths.

Physicians focused on patient records in the three categories for which our actual reported death rate was more than half the "expected" death rate.

Gastrointestinal Catastrophes
- There were 16 patient deaths. Of these patients, 5 died within 24 hours after admission and 3 were 90+ years old.

Severe Acute Heart Disease
- There were 36 patient deaths. Of these patients, 6 were transferred from other acute care hospitals in extreme condition and died within 48 hours of admissions. 8 patients were transferred directly from Nursing Homes.
- More than half of the 36 patients (21) died within 48 hours of admission. Of these, 12 died within the first 24 hours.

Sepsis
- There were 7 patient deaths. Of these, 5 died within 24 hours of admission, 3 patients were transferred directly from Nursing Homes and 2 were emergency admissions.

QUALITY ASSURANCE

St. Elizabeth's Hospital's principal goal is to provide high quality patient care. Efforts directed to this end include physician review of all deaths, focusing on unexpected deaths, regular Departmental Meetings which routinely address patient care issues, and Medical Staff committees focused on the quality of patient care. The Department of Quality Assurance at St. Elizabeth's Hospital provides an ongoing system of collecting and evaluating information about important aspects of patient care. Toward this goal, all areas involved in the delivery of patient care services and outcomes are evaluated to insure that standards and guidelines comply with rules and regulations of the professional staffs. Through the information and data collected, which includes review of both deaths and complications, the opportunity for further improvement of patient care is closely evaluated. Problems identified and recommendations for corrective action are referred to the Medical Peer Review Committee, the Hospital President, and the Board of Trustees.

Sincerely,

William J. Skerry
President

St. John's Hospital

October 28, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
PO Box 26686
Baltimore, Maryland 21207

Gentlemen:

St. John's Hospital is committed to the delivery of quality patient care. Quality patient care has always been of the utmost concern with our Board of Trustees, Administration and our medical staff. Any indications of potential problems as a result of either internal peer review or external review (PRO or H.C.F.A. mortality data) immediately prompts investigation to determine if a problem in fact exists. If a problem is identified, St. John's Hospital immediately institutes corrective action through its Quality Assurance Committee.

St. John's Hospital is a 252 bed Community Hospital delivering patient care to primarily medical/surgical patients. Given the actual mortality data for St. John's Hospital in H.C.F.A.'s sixteen diagnostic categories identified, St. John's is pleased to note that the hospital never exceeded the high expected percentage of mortality in any of these categories.

Addressing only the last admission causing a death, or the out of hospital death occurring within thirty days of a prior admission for Medicare patients in 1986, in no way allows for the public to form a valid opinion relative to quality patient care. This slanted statistical approach does not identify the multiple admissions any one of these patients could have caused during a twelve-month period prior to their death, nor does it take into account the severity of illness these patients could have presented with, or the terminally ill patient who ultimately expires.

In the specific data released for St. John's Hospital, the hospital found that the average age of its Medicare patients who expired was 78 years: ninety-nine male patients for 41% of those deaths identified with an average age of 75 years; and 141 female patients for 59% of those deaths identified with an average age of 80 years. St. John's thus finds itself two to three years above the national average in life expectancy for both male and female Medicare patients.

For each diagnostic category presented

DIAGNOSIS	AVERAGE AGE OF ST. JOHN'S MEDICARE DEATH
Cancer	77 years
C.V.A.	78 "
Ophthalmology	68 "
Gastrointestinal Catastrophies	84 "
Gastrointestinal Diseases	75 "
Urological	76 "
Low risk heart	78 "
Severe Heart disease (chronic)	81 "
Severe heart disease (acute)	78 "
Metabolic disorders	75 "
Pulmonary disease	75 "
Renal disease	86 "
Sepsis	82 "
Trauma	87 "
Other	73 "

St. John's had no patients expiring in the gynecologic category or orthopedic category.

In examining the cancer diagnostic category and the thirty-nine deaths St. John's had for Medicare patients in 1986, St. John's had some 260 Oncology patients present in some 22 different Cancer Diagnostic Related Groups categories. When one examines the number of cancer diagnoses presenting in these categories both primary and secondary; initial admission or readmissions, the hospital found for fiscal 1986 that there were 674 cancer categories represented. Given that this is a terminal illness and examining those diagnoses identified for primary or secondary, 11 out of the 39 Medicare deaths of 28%, expired at St. John's with a metastasis from a primary site. St. John's did not find this to be unusual, but expected.

In addressing patterns of admissions in four of the categories presented, G.I., other, renal, sepsis, St. John's Hospital was able to identify that some 53% of these admissions came in through the Emergency Room from home and that 30% were admissions from nursing homes. The hospital also looked at Code status in same sample and found that 47% of the patients who died had "no code" status, so the expectation of death was realized by patient and/or family representative and again we see that the age and complexity of the illnesses presented play a major role in the treatment of St. John's patients and in the ultimate discharge.

Sincerely,

Rodney N. Huebbers
Vice President of
Operations

ST. JOSEPH'S HOSPITAL

220 PAWTUCKET STREET • LOWELL, MASS. 01854 • TEL. (617) 453-1761

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
Post Office Box 26684
Baltimore, Maryland 21207

Gentlemen:

We are aware of the forthcoming December 1987 Health Care Financing Administration's plans to publish the mortality information on Medicare patients treated in 1986.

Saint Joseph's Hospital recognizes the intent to provide this information as a measurement of quality care. We also recognize, however, the problems and inadequacy of using this data.

Based on our analysis, the following problems are noted:

** incorrect dates of death

** the principal diagnoses do not necessarily reflect the cause of death

** secondary conditions are not considered

Please refer to the attached report noting the adjustments on the dates of deaths. Eight-five (85%) percent of the deaths on the report were validated for the date of death and found with a three (3%) error rate. Seven (7%) percent of the cases were reviewed for accuracy of the principal diagnoses.

It is important in reviewing this data to keep in mind that the principal diagnoses, referred to in the mortality information, do not necessarily reflect the cause of death. Rather, they merely indicate why the patient encountered the health service.

Within the category of Low Risk Heart Disease - the only category of sixteen (16) categories listed at Saint Joseph's Hospital indicating a mortality rate higher than the predicted rate - all of the patients cases were reviewed. Of these thirteen (13) cases, seventy-six (76%) percent involved principal diagnoses that were not the cause of death.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

All of these cases had secondary diagnoses and procedures performed which are not reflected in the mortality data. It is safe to conclude, therefore, that the data does not reflect severity of illness. Patients listed by principal diagnoses in a low-risk category could, in some cases, appropriately be listed in a high-risk category.

For example, please refer to Patient [redacted], an 81-year-old male, admitted June 28, 1986, expired July 11, 1986, principal diagnosis of 411.1. This patient was admitted with preinfarction angina, treated, developed pulmonary edema and acute myocardial infarction with a history of arteriosclerotic heart disease, diabetes mellitus, and a history of a prior myocardial infarction.

Patient [redacted] -- This patient had a principal diagnosis of unstable angina, secondary of diabetes mellitus uncontrolled, status post-coronary bypass graft times three, status post CVA. This patient was admitted and observed in the Intermediate Care Unit. His cardiac enzymes were completely negative, including on the date of transfer. An EKG revealed variable amounts of inferior and anterior lateral ST segment depressions and T-wave inversions. EKG waves obtained during symptoms actually showed psuedo-normalization of the repolarization abnormalities. The patient was initially given I.V. Nitroglycerin, and this was discontinued because of severe headache. However, when the symptoms recurred, he was resumed on Nitroglycerin and given analgesia p.r.n. Despite having Diltiazem escalated to 90 mgs, q.i.d., Isordil started 20 mgs., q.i.d., Lopressor continued at 50 mgs., b.i.d., and Nitroglycerin infused at rates as high as 100 mcgs. per minute, the patient had recurrent episodes of chest pain. He was also continued on aspirin and Persantine.

Because of the above, the patient was considered a medical failure with regard to anginal control and arrangements were made for him to be transferred to another acute care facility for repeat coronary angiography.

Further, three of the patients in this grouping did not die during the episode of care, but within 30 days following discharge. Two of these cases upon discharge from this facility were transferred to an extended care facility or another acute care hospital. At this time, we are awaiting verification of the patients' causes of death.

It is also useful to note that this report deals solely with the Medicare population and excludes patients with a length of stay greater than 30 days. It does not reflect the total number of admissions.

It is our belief that if the problems associated with the data in this category were resolved, the actual mortality rate would fall well within the predicated range.

The Board of Trustees of Saint Joseph's Hospital strives to assure quality patient care by requiring and supporting the establishment and maintenance of a hospital-wide quality assurance program.

The responsibility of quality assurance is delegated to the CEO, who in turn has delegated this responsibility to the Quality Assurance Committee and the Medical Director. The Department Heads/Chiefs of Service have the responsibility for quality assurance within their respective departments.

Significant problems affecting patient care are reported to the Chiefs of Service, Medical Director, or the Chairman of the Medical Care Evaluation Committee for immediate action. All quality assurance activities are reported and summarized on a quarterly basis to the Hospital's Quality Assurance Committee. The Quality Assurance Committee reviews the summary. Any significant unresolved problems are brought to the attention of the Medical Staff and the Board of Trustees.

Identified problems are resolved through the actions taken by Supervisory Staff, Medical Staff, Executive Committee and other departmental services. When indicated, the quality of patient care is improved.

Sincerely,

James H. Frame

James H. Frame
President

JHF/mem
enclosures
certified mail #P335-109-264
return receipt requested
cc: Charles D. Kemos, M.D.
Sister Yvette Thibaudeau, s.c.o.
Ben Jacques
Barbara Dotson

St. Luke's Hospital
of Middleborough

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

To Whom It May Concern:

The following comments are submitted upon review of the HCFA Mortality Data for St. Luke's Hospital of Middleborough.

The data used by HCFA indicate that a total of 97 Medicare patients admitted to St. Luke's Hospital died within 30 days of admission. Of these, 75 died while still a patient of the hospital, while 21 died after discharge. Our own records indicate that 1086 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. It is impossible to determine the percentage of the patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record. We do know that [redacted], was treated by the hospital twice after the date your data says she expired. Without detailed information concerning the billing data avialable to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

We have reviewed 39 cases randomly and noted that most had comorbid condition and/or DNR orders. The majority of all patients were in their eighties so death is not an untold event for these patients, particularly given the diagnosis.

Unique to our hospital is the high number of nursing home beds served by us. There are 595 nursing home beds backed up by the hospital causing an above average number of elderly admissions with acute conditions.

Sincerely,

Peter W. Brown
President

PWB:ljk

52 Oak Street • Middleboro, Massachusetts 02346 • (617) 947-6000

Saint Luke's Hospital of New Bedford, Inc.

101 PAGE STREET, P.O. BOX H-3003, NEW BEDFORD, MA 02741-3003 617-997-1515

John P. Bihldorff, FACHE
President

October 27, 1987

Health Standards and Quality
Hospital Mortality Information
P.O. Box 2684
Baltimore, MD 21207

Dear Sir:

Enclosed are the comments of St. Luke's Hospital of New Bedford, Inc., to be published with HCFA's mortality data in the Federal Register.

Thank you for your attention to this matter.

Sincerely,

John P. Bihldorff

llc
enclosure

VERIFICATION OF HCFA MORTALITY RATE DATA AND COMMENTS

In response to the Health Care Financing Administration's data of mortality rates based on the last admission of Medicare beneficiaries at St. Luke's Hospital of New Bedford, Inc., in New Bedford, Massachusetts, during the calendar year of 1986, this report examines the following:

. Accuracy of the HCFA data

. Limitations of the HCFA data

. Unique characteristics of St. Luke's Hospital

. Ongoing quality assurance activities at St. Luke's Hospital

ACCURACY OF HCFA DATA

There were no material problems or errors discovered in the HCFA data.

While the data does not show any exceptions at St. Luke's Hospital to the expected mortality rate in the categories cited, there are limitations to how this data can be interpreted.

LIMITATIONS OF THE HCFA MORTALITY RATE REPORT

HCFA's report on mortality rates does not provide adequate data, medical review or specialized interpretation to be useful as a quality assurance guide or to measure a hospital's performance. Limitations of the report include the following:

. The data assumes that each hospital's patients are equal in terms of level of illness. In fact, St. Luke's has unique circumstances which contradicts this assumption.

. The data does not include any measurements of the severity of illness at the time of admission which is an extremely important indicator of the patient's prognosis. This factor is particularly important when treating a large percentage of patients 75 years of age or over.

. The report does not indicate whether the patient was admitted with a terminal illness. Many cancer patients are often admitted to the oncology unit or discharged to the care of Hospice in the terminal stages of an illness.

Therefore, this report, or any report that lists general mortality rates, cannot by itself measure quality of care. Only through actual case review by trained hospital quality assurance and utilization review professionals can quality judgements be made.

UNIQUE CHARACTERISTICS OF ST. LUKE'S HOSPITAL

Several unique factors that pertain to St. Luke's Hospital of New Bedford, Inc., deserve special mention in relation to the data presented. These unique circumstances combined with the status of St. Luke's Hospital as the sole provider of several specialty acute care services in the area are important components that should be considered

when attempting to interpret the HCFA data. Many of these specialty services typically attract patients who are in the final stages of illness or who are seriously ill. These unique characteristics include:

. St. Luke's has one of the highest rates of AND (Administratively Necessary Days) patients in the state of Massachusetts. These elderly patients no longer require acute care hospitalization, but remain hospitalized, often for extended periods of time, until placement in a chronic care or nursing home facility is located. This situation means that St. Luke's Hospital has an extremely large percentage of elderly patients 75 years of age or older. In the City of New Bedford, 76.7% of the population over 65 years old is 75 years of age or older. This is nearly 2% higher than the state average. The significance of this growing elderly population is reflected in St. Luke's statistics where nearly half (48.5%) of all patients are Medicare recipients. St. Luke's Medicare discharges of patients 75 years of age or older are 4% higher than the national rate.

. St. Luke's has an 18-bed oncology unit where many patients are being treated for end-stage diseases. In addition, St. Luke's Hospital also operates a Hospice Program which provides special care for terminally ill patients in their own homes. This service bears significance when examining the number of cancer deaths after hospital discharge.

. Other special services typically offered to the elderly include inpatient dialysis and care of the acute stroke patient. Such services tend to attract patients who are more seriously ill.

QUALITY ASSURANCE AT ST. LUKE'S HOSPITAL

While St. Luke's is committed to providing quality care and has long considered mortality review as part of its quality assurance program, mortality rates by themselves do not measure quality and can only be used as a tool in the quality assurance process which requires review by medical professionals.

Through accreditation by the Joint Commission on the Accreditation of Healthcare Organizations, a national and voluntary accreditation process, the hospital insures that the highest standards are met in delivering patient care and providing a comprehensive quality assurance program. In addition, the Commonwealth of Massachusetts requires that hospitals in the state are licensed. This process, which is not universally required in the nation, also mandates quality assurance programs.

The quality assurance process starts early on during a patient's hospital stay and includes the monitoring of unexpected occurrences, such as infection and early discharges, as well as unexpected deaths. Medical staff, nursing and other clinical and diagnostic services regularly participate in quality assurance reviews.

bj
10/27/87

90 Cushing Avenue, Boston, Massachusetts 02125-2099 Telephone (617) 436-8600



October 27, 1987

Health Standards and Quality Division
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Re: Hospital #220102

Dear Administrator:

St. Margaret's Hospital for Women is pleased to confirm that there were no deaths of hospitalized Medicare patients in 1986.

St. Margaret's Hospital for Women is a major Catholic obstetrical, gynecological and neonatology hospital specializing in services and programs for both women and infants. The expertise of neonatology and maternal-fetal medicine staff, the specialized training of the nursing staff, the knowledge and skills of the teaching faculty, and use of state-of-the-art technology, have earned St. Margaret's reputation for excellent treatment of high-risk infants and women with complicated and uncomplicated pregnancies. It is a member hospital of the Caritas Christi Health Care System and a major affiliated hospital of Tufts University School of Medicine.

St. Margaret's Hospital for Women maintains an active Quality Assurance and Utilization Review Program to ensure and provide ongoing monitoring and evaluation of the quality and appropriateness of patient care. This program has enabled St. Margaret's to maintain high quality standards for medical care and be responsive to all consumer and patient concerns.

Thank you for this opportunity to participate with the Health Care Financing Administration in its effort to produce and publish accurate information.

Sincerely,

Linda B. Caliga
President

LBC:cbf
cc: Quality Assurance Committee, S.M.H.W.

SAINT VINCENT HOSPITAL, INC. WORCESTER, MASSACHUSETTS 01604 - TELEPHONE 617-798-1234

WILLIAM D. HARKINS
PRESIDENT AND
CHIEF EXECUTIVE OFFICER
617-798-6081

October 27, 1987

Health Care Financing Administration
Health Standard and Quality
Hospital Mortality Information
Box 26684
Baltimore, Maryland 21207

Gentlemen:

Enclosed please find Saint Vincent Hospital's written comments regarding HCFA Mortality Data.

Sincerely,

William D. Harkins
President and Chief Executive Officer

WDH:ffv
Enclosure

Saint Vincent Hospital Hospital = 220028

HCFA Mortality Data

We are pleased to take this opportunity to discuss the HCFA Mortality Data. Indeed, it is our responsibility to comment on the methodologies utilized, validity of published data, Saint Vincent Hospital performance, as well as our ongoing commitment to quality care for all of our patients.

The methodology utilized excludes multiple admissions of Medicare beneficiaries and focuses only on the last admission during the calendar year of 1986. In actuality, the overall mortality rate for this population at Saint Vincent Hospital is 7.7%.

There is a 98.8% agreement rate in the total number of mortalities reported by HCFA and the number from our internal database. Again, all mortality rates are higher than actual because all Medicare admissions were not calculated in the report. The actual mortality rates for each diagnostic category is listed below.

	Actual Mortality Rate %		Actual Mortality Rate %
CA	13	HM	10
CE	12	HS	14
EY	-	ME	10
GC	7	OP	.3
GI	2	PN	10
GU	3	RN	14
GY	-	SE	25
HL	2	TR	6

In total and in each diagnostic category the mortality rate is well within the predicted range and in most instances at the low to midpoint of the range.

Saint Vincent Hospital utilizes a nationally recognized severity of illness classification system which allowed us to obtain a severity adjustment for this data. Severity scores range between 0 and 4, and our average weighted severity for this group of patients was 3.3%. This reflects patients with high potential for and/or realized organ failure, with additional acute and/or critical clinical findings. In short, this patient group was critically and/or terminally ill.

Saint Vincent Hospital's commitment to quality patient care is

proactive. The entire hospital team is involved in the ongoing assessment of each patient's needs. There is a designated Quality Control division involved in a continuous integrated and coordinated program. Through established medical staff committees the effectiveness and appropriateness of care is reviewed on a case by case basis.

The data presented to you should not be construed as a measurement of the hospital's performance but rather as a tool for further evaluation. It provides to us further evidence that our ongoing assessment of patient care is providing successful results.

Sturdy Memorial Hospital

211 Park Street | Attleboro, Massachusetts 02703-3137 | Telephone (617) 222-5200

October 22, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

Sturdy Memorial Hospital, Attleboro, Massachusetts (Medicare provider number 220008) appreciates the opportunity to comment on our mortality data and the statistical model from which they were derived. Although there were no diagnostic categories in which our actual mortality rate fell outside the range of predicted mortality rates, we looked carefully at the cases included in the one category (Gastrointestinal Diseases) that reached the upper limit of its predicted range. Our findings highlight the significant concerns we have about the validity of this statistical model. It is important to note up front that no statistical gymnastics can, by themselves, define the presence or absence of quality medical care. At best, a model can indicate areas that warrant further review. In this case, further review has revealed serious shortcomings in the model used here.

Before proceeding to our case review, it should be noted that HCFA's data is remarkably accurate. The few corrections attached relate to patient age, date of death, and two changes in principal diagnosis. None of these corrections creates a substantive change in Sturdy's data. Moreover, in no category is there an unusual number of deaths after discharge. There is a real shortage of nursing home beds in this area, and it is not uncommon for patients to be admitted to Sturdy in the last days of their illness. Finally, we uncovered no pattern of unexpected deaths; our Medicare patient population is very old and often afflicted with multiple life-threatening conditions.

Close examination of the Gastrointestinal Disease category shows that 20 patients out of 208 died within 30 days of admission, 17 in the hospital and 3 after discharge to nursing homes. The average age of this group was 78.1 years. Only three of these patients were identified by HCFA as having comorbid conditions which would make their deaths more likely. It is at this point that the model's validity clearly breaks down.

The comorbid conditions identified by HCFA all represent chronic conditions which might be expected to complicate an acute illness and therefore might more likely result in a patient death. Of course, this is a reasonable

assumption. However, apparently only when an identified comorbid condition appeared as the first secondary diagnosis was it counted as being present. Medicare billing regulations allow for one principal diagnosis and four secondary diagnoses. The presence of secondary diagnoses can sometimes affect DRG assignment, but their order is immaterial. When DRG assignment is completely unaffected by secondary diagnoses, then the four chosen for a bill may reflect their chronological appearance in the patient's case or the most resource-intensive secondary diagnoses.

As a result of the model's selection of comorbid conditions (CCs) only three of our gastrointestinal deaths were identified as having CCs. In reality, 16 of the 20 deaths presented HCFA-identified comorbid conditions.

An additional problem with the model is that the presence of additional acute conditions is ignored altogether. The implicit assumption, since this mortality data project purports to address quality of care, is that additional acute conditions must somehow reflect poor quality care in the hospital. Such an assumption is totally unwarranted.

Although it is unfortunate, it is nevertheless true that for all 20 gastrointestinal deaths attributed to Sturdy, death was not an unexpected outcome. There are certainly other gastrointestinal patients in the 208 total for whom death may also have been likely but whose lives were extended because of the high quality of care which we deliver. Finally, we are simply fortunate that the inadequacies of this statistical process did not produce more categories which required our attention. Since the model has not been validated, there can be no predictions about future results.

Thank you for the opportunity to comment in public.

Sincerely,

Linda Shyavitz
President and Chief Executive Officer

Enclosure

HCFA MORTALITY DATA

Hospital ID 220008

Errata Sheet

Corrections appear over the original data and are highlighted.

Pt. ID	Surname	Dx Category	Age	Sex	Adm.	Disch.	Death	Principal Diagnosis	Principal Procedure
[redacted]		CA	83	F	02/28/86	03/12/86 03/11/86	03/12/86	1890	9904
[redacted]		CE	89	M	11/26/86	12/03/86	12/03/86	5722 4349	9399
[redacted]		GC	83	F	03/02/86	03/10/86 03/07/86	03/10/86	5571	9399
[redacted]		GI	85	F	08/24/86	09/02/86	09/02/86 09/01/86	53241	9399
[redacted]		ME	81	F	07/28/86	08/17/86 08/05/86	08/17/86	53210 2765	4442 9338
[redacted]		CA	89 87	M	10/23/86	11/01/86	11/01/86	1538	9399
[redacted]		CA	74	M	01/19/86	01/27/86 01/26/86	01/27/86 01/26/86	1623	9399
[redacted]		HM	78	M	01/22/86	02/05/86	02/05/86 02/06/86	4280	9399
[redacted]		CE	76 77	F	02/02/86	02/07/86	02/07/86	4349	9399
[redacted]		UN	93 97	F	11/15/86	11/21/86	11/21/86	44422	3808
[redacted]		GI	71	M	12/01/86	12/04/86	12/04/86 12/06/86	53200	3992
[redacted]		GC	96 91	F	06/26/86	06/26/86	06/26/86	5609	5794
[redacted]		TR	95 96	F	03/20/86	04/09/86	04/09/86	82009	8162
[redacted]		TR	69	M	07/01/86	07/12/86	07/12/86	82021	7935

MA 106.2

The Cambridge Hospital

1493 Cambridge Street, Cambridge, Massachusetts 02139 (617) 498-1000

October 15, 1987

Mr. Howard Brook
6325 Security Boulevard
Meadows East Building, Room 202
Baltimore, Maryland 21207

Re: HCFA Mortality Data

Dear Mr. Brook:

As per our discussion on October 13, The Cambridge Hospital had not yet received their data; therefore, a request for an extension on the response time is being made for beyond the date of October 28, the deadline date.

Please respond in writing as to whether an extension will be granted due to the data not reaching The Cambridge Hospital in a timely fashion.

We appreciate your giving this matter your immediate attention.

Sincerely,

Susan W. Mahoney

Susan W. Mahoney
Quality Review Director

cc: John O'Brien , Administrator
Dennis Keefe , Associate Administrator
Karol B. Joseph, MHA

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

The Cambridge Hospital

1493 Cambridge Street, Cambridge, Massachusetts 02139 (617) 498-1000

"EXPRESS MAIL"

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Attention: Mr. Howard Brook

Dear Mr. Brook:

Upon review of the HCFA Mortality Data for Cambridge Hospital patients during 1986, The Cambridge Hospital has observed the following:

1. This data represents only the predicted mortality rates for the Medicare population.

2. Data used by HCFA indicates that a total of 69 Medicare patients admitted to The Cambridge Hospital died within 30 days of admission, while 26 died after discharge. Of the 26, our records reflect that 4 patients died before discharge. Corrected data is attached.

3. The fact that a patient dies after discharge is not in itself an indication of the quality or outcome of care rendered. Many patients with a terminal condition, or end stage in a disease process, prefer to live out their lives at home or in a nursing home. These options are offered to all patients and families.

4. Our records indicate that 1370 Medicare admissions occurred in 1986, which reflects a small sample size. When analyzing small sample sizes, statistical validity is questionable. Nonetheless, in all of the diagnostic categories, the Hospital's actual mortality rate is "within range" in all indicators relative to predicted ranges.

5. The age distribution reflects that the majority of patients were over the age of 75. The expectation would be a higher probability of death than in patients aged 65 to 75. HCFA was unable to provide a national age distribution by diagnostic category for our comparison.

6. It is impossible for the Hospital to verify the percentage of patients who died after discharge. Information concerning death after discharge is not included in the patient's medical record for obvious reasons.

7. In order for The Cambridge Hospital to meet the needs of the community, our records indicate 55% of admissions occur through the Emergency Room. A large percent of Medicare patients are from area nursing homes. The HCFA data do not include the severity of the patient's illness at the time of admission.

8. The Quality Assurance Program at The Cambridge Hospital includes mortality review as an ongoing monitor. Any unanticipated death requires an indepth review by a physician member of the program. The structure allows for reviewing patterns of practice over time; therefore, if any problem was identified, it would be addressed. In reviewing the HCFA data, it is concluded that there has been no area of concern, although the data has been shared with clinical staff for informational purposes and further review.

Sincerely,

THE CAMBRIDGE HOSPITAL

John G. O'Brien,
Hospital Administrator

JGO/djh

Attachment

THE MALDEN HOSPITAL
HOSPITAL ROAD, MALDEN, MA 02148-3591 ▪ (617) 322-7560

PHILIP J JOHNSON
Executive Vice President

October 26, 1987

William Roper, M.D.
Administration
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Att: Medicare Mortality Report

Dear Dr. Roper:

The 1986 Medicare Mortality Rates for The Malden Hospital have been reviewed for accuracy against our own data. Please be informed that, on the basis of this analysis, five data discrepancies have been identified. The correct data appears on the attached summary.

Inasmuch as these discrepancies do not affect the favorable status of The Malden Hospital's range of predicted mortality in any of the reported sixteen diagnostic categories, I am not requesting the publication of any comments in the 1986 HCFA mortality report.

Sincerely,

Philip J. Johnson
Executive Vice President

PJJ:meh

The Malden Hospital

Details for the five patients with MH/HCFA date discrepancies.

PATIENT I.D. NO.	NAME	THE MH DATES	HCFA DATES
[redacted]	[redacted]	Expired 7/26/86	Expired 7/31/86
[redacted]	[redacted]	Expired 7/17/86	Expired 7/18/86
[redacted]	[redacted]	Expired 9/23/86	Expired 9/25/86
[redacted]	[redacted]	Expired 11:45 PM 6/29/86 Pronounced 12:30 AM 6/30/86	Expired 6/30/86
[redacted]	[redacted]	Admitted 9/23/86	Admitted 9/29/86

the nashoba community hospital

Comments On HCFA Report of 1986 Mortality Rates of Medicare Patients

HCFA statistics indicate that The Nashoba Community Hospital is well within predicted mortality rates for all 16 reported diagnostic categories. In 14 of these categories, Nashoba Hospital is within the lower 50 percent of the reported national mortality rates.

Our Patient Care Management Department carefully reviewed the statistics as reported by HCFA and found them to be accurate with only minor mathematical discrepancies in the reported percentages.

However, we feel that the public should clearly understand that these statistical reports are not a measure of quality of care, in this or any hospital. This is due to the variables involved, such as severity of illness and age, and the inconsistency of the reporting of information nationwide.

Quality patient care has long been the hallmark of The Nashoba Community Hosptial and we remain committed to our effective quality review process that ensures a high level of care for all our patients.

Roland E. Larson
President/CEO

October 27, 1987

Medicare Provider Number: 220098

200 Groton Road, Ayer, Massachusetts, 01432 (617) 772-0200

PROVIDENCE HOSPITAL

NURSING DIVISION

"Professionals Committed To Quality"

October 28, 1987

Mr. Harvey Brook
Meadow East Building-Rm 2D2
6325 Security Blvd.
Baltimore, MD

Dear Mr. Brook

This letter is in response to your release of hospital mortality rates by the Health Care Financing Administration in December 1987. The report generated displays the number of deaths that occurred to patients during the 30 day period after their last hospital admission during 1986. The categories used in this report were the principle reason for hospitalization, not necessarily the cause of death. It should also be noted that not all deaths occurred during the hospital stay. The report shows that the actual mortality rated for Providence Hospital are within or below the predicted range of mortality rates developed by the Health Care Finance Administration.

In review of this data several inaccurracies appear in the number of cases selected; our data shows a substantial increase in the number of medicare cases for sepsis and the number of discharges. We have contacted our computer center to varify this data for its accuracy.

Careful reviews of the deaths used in this report showed that 9.1 percent of the deaths that occurred were after discharge from the hospital. The cause of death and circumstances surrounding the deaths may not be related to the reason for admission to the hospital. There are numerous factors that can cause this to happen. Reviews of patient discharges show that the patients are medically stable at time of discharge.

The analysis of principle reason for the hospitalization is not always the cause of death. This type of an analysis may not reflect accurate statistics that show the real cause of death that may be from other existing conditions.

Providence Hospital has a system of ensuring that quality care is provided to all persons using services provided at the hospital. As part of this comprehensive program to ensure quality, all deaths that occur are reviewed to ensure that appropriate and quality care is provided to the patient. Patient care review,

tissue review, antibiotic usage review and mortality review are just a few reviews conducted that are part of our comprehensive program that provides information about the quality of care. Examining one issue such as mortality data alone is not a measure of the quality of care provided by a hospital; it is only a part of the total picture of quality measurement and fails to provide much information.

Providence Hospital is committed to provide the highest quality of care to patients that is possible and will continue to review patient care and take opportunities to improve the care that the person receives at the hospital.

Sincerely

Wallace Poto-Dill, RNC, FNP, MSN
Director of Quality Care

mh

TOBEY HOSPITAL, INC.
43 HIGH STREET
TELEPHONE (617) 295-0880
WAREHAM, MASSACHUSETTS 02571

October 28, 1987

Health Care Financing Administration
Department of Health and Human Services

Attn: Harvey Brook
HSQ-B
P.O. Box 26684
Baltimore, MD 21207

Medicare Mortality Data Commentary
Medicare Provider #220074

The quality of care rendered at Tobey Hospital is of the utmost concern of our medical staff, the Board of Trustees, and all of our employees. While Tobey Hospital's mortality data falls within the acceptable ranges, we do not believe that mortality data is a clear measure of quality. The measurement of quality is an inexact science. Thus, on the one hand, while we think it is important that health care consumers obtain information about quality levels, we do not believe that mortality data is a clear or even meaningful reflection of quality.

Mortality data can be appropriately used to guide and focus peer review, but by itself, it does not measure quality.

I would like to stress that the Health Care Financing Administration (HCFA) model has a few technical problems. As alluded previously, the ability of the model to detect differences in quality has never been established or evaluated.

The HCFA model assumes an "average" patient, only taking into consideration certain characteristics such as the patient's age, sex, principle diagnosis, any pre-existing medical problems, and the number of times the patient was admitted into a hospital during the previous twelve months.

The model does not reflect severity -- how ill the patient was prior to arrival at the hospital, whether he/she came from a nursing home, or whether they had undergone any home treatment before entering the hospital.

One further point to be noted is that the HCFA data is not all inclusive. The mortality rates only apply to Medicare patients. It is our understanding that both the American Hospital Association and several other organizations including the Joint Commission, are investigating methods of evaluating hospital quality that utilize measures other than mortality rates. Tobey Hospital looks forward to the culmination of these efforts and will participate in their implementation.

Until additional models are developed, Tobey Hospital will continue to maintain our own stringent quality assurance practices.

Our Quality Assurance and Risk Management Departments have established a variety of formal mechanisms to oversee the process of patient care with the goal of maintaining quality outcomes. At Tobey Hospital, <u>all</u> patient deaths (not just Medicare patients) are reviewed in depth by a physician committee -- the hospital course of an expired patient is completely analyzed. In addition to mortality reviews, the incidence of unexpected adverse outcomes is also reviewed.

Before a patient is discharged from our hospital, he/she must be thoroughly screened to insure that they are medically stable. All of these reviews are trended to determine any problem areas that may not surface on a case by case review.

Patient and family complaints are also thoroughly investigated and brought to the attention of the physician and/or department of concern. Again, these complaints are trended and spot checks are often conducted.

The fact that Tobey is a small hospital keeps us even busier. There are times when procedures are conducted less frequently than others. Reviews then focus on the procedure for appropriateness of technique thus insuring the level of skill and care practiced by additional monitoring. Those procedures that cannot be done on a quality level at Tobey Hospital are referred to more appropriate institutions.

Quality of care is not only a commitment at Tobey Hospital, it is our foremost concern. We believe that we have established several formal mechanisms to insure quality, but we do look forward to a more concrete measurement model and further exploration into the quality of care issue.

Sincerely,

Charles S. Kinney,
President

CSK/dex

UNIVERSITY OF MASSACHUSETTS
AMHERST • BOSTON • WORCESTER

CHIEF OF STAFF
UNIVERSITY OF MASSACHUSETTS HOSPITAL
ASSOCIATE DEAN FOR CLINICAL AFFAIRS
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL
55 LAKE AVENUE NORTH
WORCESTER, MASSACHUSETTS 01605
(617) 856-3089

October 27, 1987

UMH
Medicare Provider #220163

Administrator
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

We have carefully reviewed the mortality data for Medicare patients at the University of Massachusetts Hospital for 1986. We have the following brief comments.

First, we were gratified to find that our actual patient mortality fell within the predicted range for all categories. Given the unusually severe nature of illness of patients at our tertiary care hospital, we might anticipate a higher-than-average mortality. The fact that this is not the case may be viewed as one measure of the high quality of care our patients receive.

Second, we chose to perform a careful case review of a broad sample of the patients included in the data which the Health Care Financing Administration supplied to us. We did this as a part of the ongoing assessment of the care we provide in order to determine if there were any quality of care problems which might have contributed to patients' deaths. We determined to pay particular attention to deaths which occur after discharge and to assure ourselves that patients were not discharged prematurely or inappropriately. This intensive review revealed no instances of poor quality care or of inappropriate discharge.

The University of Massachusetts Hospital takes very seriously its commitment to quality patient care and will take advantage of any opportunity to assess the effectiveness of our care.

Sincerely,

Ganson Purcell Jr., M.D.

GP/sba

BOSTON UNIVERSITY MEDICAL CENTER
BOSTON UNIVERSITY SCHOOL OF MEDICINE • THE UNIVERSITY HOSPITAL • BOSTON UNIVERSITY GOLDMAN SCHOOL OF GRADUATE DENTISTRY

The University Hospital

Marketing/Public Affairs Department
720 Harrison Avenue
Boston, Massachusetts
02118-2393
617 638-8149

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
6300 Security Boulevard
Meadow East Building
Room 2D-2
Baltimore, MD 21207
Attn: Mr. Harvey Brook

To Whom It May Concern:

Enclosed please find the University Hospital's comments in response to the proposed release of hospital mortality information. If there are any questions about these comments, please do not hesitate to contact me.

Sincerely,

Donald R. Giller
Director of Marketing
Communications/Public Affairs

pj

cc: J. Scott Abercrombie, Jr., M.D., President
Craig Melin, Vice President, External Affairs
H. Sandhu, M.D., Chairman, Quality Assurance Committee

THE UNIVERSITY HOSPITAL
Boston, Massachusetts

COMMENTS ON HCFA'S MEDICARE INPATIENT MORTALITY STUDY

INTRODUCTION: The University Hospital of Boston, Massachusetts, appreciates this opportunity to comment on the mortality data to be released by HCFA. We share HCFA's belief that informing the public about the quality of health-care services will aid patients in making better decisions about where to seek health care; and we believe that, over time, patients will seek out reliable and verifiable measures of quality and make health-care decisions on the basis of these measures.

To the extent that one might believe HCFA's methodology, the results of the current study would seem to confirm the high quality of patient care given at the University Hospital. In 15 of the 16 patient categories reviewed, the University Hospital's actual mortality rate was well below the mean of the predicted mortality range; in three categories the Hospital's mortality rate was actually below the minimum range projected. However, despite the fact that results of the study seem to confirm the high quality of patient care at the University Hospital, we believe the study itself to be seriously flawed and therefore not credible.

THE HOSPITAL: The University Hospital is a 379-bed tertiary referral hospital, providing acute adult medical, surgical and psychiatric care. The Hospital offers a broad range of specialty services (excluding Obstetrics, Pediatrics and Neonatal Care), with special emphasis on Cardiovascular Care, Neurological Trauma and Disorders, and Geriatrics Care. These areas of emphasis generate tertiary patient referrals from a broad geographical area, including Eastern Massachusetts, New England and many countries around the world.

As a tertiary referral center, the University Hospital treats patients of unusually high complexity and illness severity. These patients include those whose care cannot be provided in a community hospital, either because of the need for procedures or equipment available only at a tertiary referral center, or because the patients' complications make them too ill for treatment in the community setting. This high level of patient illness complexity and severity must be kept in mind when one looks at mortality rate data for tertiary referral hospitals such as the University Hospital.

THE STUDY'S METHODOLOGY: Despite our agreement with the goals of HCFA's study, the University Hospital believes the methodology used is severely flawed, and that the results are not meaningful. We will not attempt here to lay out all of the methodological difficulties, but instead highlight those of greatest concern.

1. The quality of care cannot be equated with mortality rates: It is a serious mistake to equate quality of care with mortality rates. A severely ill patient who dies was not necessarily poorly treated; conversely, a patient who is poorly treated will not necessarily die of that treatment. This distinction is illustrated by the review of the Massachusetts Professional Review Organization (MassPRO) of several of the University Hospital's patients listed by HCFA as "sepsis" mortalities. Despite the death of these patients, MassPRO review found no problems with the quality of care they received.

2. The HCFA methodology may "credit" the wrong institution for a patient's death: The inaccuracy of the HCFA methodology is further exaggerated by the way in which it "credits" a death to the last hospital treating a patient. Hence, if a patient's condition seriously declines at one hospital, and that patient is then tranferred to a referral facility for heroic measures, the first hospital escapes notice, while the referral facility is recorded as accountable for the patient's death.

3. The HCFA methodology attributes death to a hospital even if the cause of death is unrelated to the hospital care: Another serious flaw in the HCFA methodology is that it "credits" a death to a hospital whether or not the cause of death was related to a hospital treatment--or even to the underlying illness. As a result, the hospital would be held accountable even for the death of a totally cured patient who is killed in a traffic accident on his way home from the hospital!

4. HCFA's methodology makes not distinction between patients who die because of low quality care and those who are dying when admitted: Tertiary referral hospitals frequently receive transferred patients whose illness is so advanced that the chances of recovery are small, and for whom treatment offers little hope. When such a patient dies, it is usually not a reflection on the quality of care, but rather on the severity of illness. The HCFA methodology ignores this reality and thus fails to distinguish these terminally ill patients from those who might be--and are not--cured.

5. The HCFA methodology recognizes only a limited number of factors as affecting projected mortality rates: By adjusting mortality rate projections to reflect complicating health factors, HCFA explicitly recognizes the need to factor illness complexity into its study. Unfortunately, the list of factors used by HCFA is far from comprehensive; this results in an understated measure of the complexity of patient illness and unrealistically low mortality rate projections.

6. The sample sizes used in HCFA's study are frequently too small to be statistically significan: Because of the "screens" used by HCFA in selecting the patient population, many diagnostic categories contain too few patients to be considered statistically significant. Certainly, any category containing fewer than 15 patients should be considered too small for meaningful results.



October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Gentlemen:

Attached is the administration comment for the 1986 HCFA Mortality Report for WalthamWeston Hospital & Medical Center. The hospital has chosen to accept the figures as they are and will not appeal at this time.

If you have any questions or concerns regarding this comment, please contact me at (617) 647-6607.

Sincerely,

Rick Finnegan

Rick Finnegan
Strategic Services

RF/edg
Enc.

Hope Avenue
Waltham, MA 02254-9116
617-647-6000

MA 114

WalthamWeston Hospital & Medical Center
Waltham, Massachusetts
October 27, 1987

1986 HCFA Mortality Report

Administrative Comment

The HCFA Mortality Report is designed to serve as one of the many tools used to compare hospitals. The report was not intended and should not be used as a strict index of performance. It is best utilized with additional and broader tests in a comparative function and not as an independent rating.

Both the mortality rates and the ranges are computed specific to individual hospitals. HCFA groups all cases into sixteen related diagnosis areas. A Predicted Range is estimated for each category. A Hospital's predicted range is based on the hospital's Medicare and Medicaid patient mix. This range approximates the expected mortality rates for the sixteen categories. The ranges are generated by comparing mortality rates of hospitals with similar characteristics and patient mix.

The Actual Mortality Rate is the percentage of Medicare and Medicaid patients in a given diagnostic category who die at the hospital or within 30 days of their discharge. It is important to note that these rates can include deaths that occur after the patient has been discharged. This death may or may not be related to the original diagnosis. For example, a patient discharged after treatment for a renal problem who dies in an automobile accident within the 30 days would be included in the mortality figures for Renal Disease. To determine if the cause of death was related to the diagnosis, follow-up calls to the deceased's physician or surviving family would be required.

Important to consider in the review of the figures is the small sample size from which the rates are drawn. With the exception of Cancer, none of the categories have greater than 200 cases. Some, such as Sepsis, Opthalmologic and Renal Disease have less than 20. The inadequate sample size reduces the rating's statistical significance. • One death in the Renal category would change its mortality rate 20%. The low confidence levels of these samples are reflected in the extremely broad Predicted Mortality Ranges of 89, 71 and 48 percentage points.

HCFA reported that WalthamWeston Hospital & Medical Center had 165 Medicare/ Medicaid deaths at the hospital or within 30 days of admission. Thirty-four deaths occurred after discharge and although it is undetermined if these were related to the original diagnosis, the Hospital has not pursued an appeal of these cases in respect to privacy of the surviving families. In one of the sixteen categories, Cancer, the WalthamWeston Hospital & Medical Center had a Mortality Rate lower than the Predicted Range. Thirteen rates

were in the low end of the range and two were in the middle. None of the Hospital's Mortality Rates fell in the high end or above the Predicted Range.

Although the results of the HCFA report were positive, the Hospital warns against using this or any other single report as the sole factor in selecting or rating a hospital. The scope of services provided by a hospital is multi-faceted and this report views only a small part of a hospital's offering. WalthamWeston Hospital & Medical Center encourages the public to make a broad and in-depth survey to determine the hospital which best serves the patient's personal health care needs.

WINCHESTER HOSPITAL

October 26, 1987

Mr. Harvey Brook
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Dear Mr. Brook:

RE: MEDICARE PROVIDER NO. 220105

Winchester Hospital's director of Medical Records and its coordinator of Quality Assurance have reviewed the HCFA data for its accuracy. With the exception of one patient, who did not expire on the date stated in the HCFA data, the number of deaths and the number of deaths in each category were identified and validated through inhouse case mix.

The constraints of the 30-day review period did not permit verification of admission statistics overall nor for the selected diagnostic categories.

Verification of HCFA data by comparing it to the inhouse case mix information showed the following:

Diagnostic Category	Winchester Hospital Mortality Rate	HCFA Mortality Rate
All Causes $^{166}/_{1617}$	10%	10%
CA $^{34}/_{147}$	23%	24%
CE $^{22}/_{67}$	33%	30%
EY $^{0}/_{7}$	0%	0%
GC $^{3}/_{31}$	10%	10%
GI $^{9}/_{180}$	5%	6%
GU $^{3}/_{60}$	5%	7%
GY $^{0}/_{25}$	0%	0%
HL $^{5}/_{134}$	4%	3%
HM $^{13}/_{58}$	22%	24%
HS $^{23}/_{63}$	37%	37%
ME $^{3}/_{34}$	9%	15%

Diagnostic Category		Winchester Hospital Mortality Rate	HCFA Mortality Rate
OP	2/101	2%	0%
PN	24/119	20%	20%
RN	1/11	9%	9%
SE	4/15	27%	20%
TR	1/45	2%	4%

Overall, the data seems accurate within limits.

Winchester Hospital believes that the following are important considerations in any interpretation of the HCFA data:

1. HCFA has categorized the cause of death into diagnostic groupings based on the principal diagnosis, which is not necessarily the cause of death. The primary diagnosis may, in fact, be the cause of death.

2. Only the Medicare population is included in the statistics. Hence, the data base (Medicare billing data) is limited.

3. Limitations of the HCFA Mortality Data are:

   a. They do not account for the acuity of illness.
   b. They do not respond to the hospital's case mix.

4. The model is simply one indicator of potential quality distinctions among hospitals. The American Hospital Association and other organizations, including the Joint Commission on Accreditation of Hospitals, are investigating methods of evaluating hospital quality that rely on measures other than mortality rates. Winchester Hospital looks forward to the results of these efforts.

5. The smaller the number of admissions, the less reliable are the statistics, since the impact of random variation of outcomes in individual cases is greater.

During the next two months, before the data is released to the public, Winchester Hospital will continue to analyze it and present it to the Medical Staff Quality Assurance Committee.

In summary, Winchester Hospital is within the range of HCFA's predicted mortality rates for all cases and the 16 diagnostic categories. We find the overall data is accurate within limits. We emphasize that the primary diagnosis, not the principal diagnosis, may be the cause of death; and the data base is limited since it includes only Medicare statistics.

As stated above, the HCFA model is only one indicator of quality. We look forward to other methods currently under investigation by the American Hospital Association and the Joint Commission on Accreditation of Hospitals.

Sincerely,

E. E. Loubier

Eugene E. Loubier
President

Winthrop Hospital, Inc.

40 Lincoln Street · Winthrop, MA 02152 846-2600

23 October, 1987

Winthrop Hospital
Medicare Provider Number:
220097

William L. Roper, M.D.
Administrator
Health Care Financing Administration (HCFA)
Department of Health and Human Services
Washington, D.C. 20201

Re: Study of mortality among Medicare beneficiaries who received care in short-term, acute-care hospitals in 1986

Dear Sir:

Winthrop Hospital had 767 Medicare-beneficiary admisions during 1986. Of the 16 diagnostic categories selected by HCFA, our hospital experienced actual mortality rates better than the national average in 12 of those categories. Thus, we out-performed the typical short-term, acute-care facility in three-fourths of the diagnoses. Indeed, your data confirms our contention that we provide quality medical care to the geriatric patient.

In the one category in which our hospital was above the range of predicted mortality rates, Sepsis (SE), only one Medicare patient with that primary diagnosis received treatment here during the entire year. That mortally-infected woman was admitted through our Emergency Room in bacteremic shock with a blood pressure that was palpable, only. She died a few hours later despite heroic effort. Obviously, a sample size of only one patient is not statistically significant.

Doctor Roper, we are pleased to participate in studies such as this and look forward to next year's evaluation of our medical care.

Very truly yours,

Robert Mittendorf, M.D.
Medical Director

WORCESTER HAHNEMANN HOSPITAL INC.
281 LINCOLN STREET • WORCESTER, MASSACHUSETTS 01605 • (617) 792-8000

Robert M. Barr,

October 27, 1987

Mr. Harvey Brook
Health Care Financing Administration
6300 Security Blvd.
Meadows East Building, Room 2D2
Baltimore, Md. 21207

Medicare Provider #220057

Dear Mr. Brook,

The purpose of this letter is to present our analysis of the mortality data for Worcester Hahnemann Hospital as well as to comment on the model used as a predictor for quality of care.

The Medicare patient data submitted to us indicates that there were 145 deaths in the HCFA sample for calendar year 1986; 123 patients died while in the hospital, and 22 died after discharge. Based on a review of our hospital records, we have found errors in the number of cases listed as dying post-discharge. Corrected figures should read 130 deaths in-hospital and 15 deaths post-discharge. In addition, after we completed a random sampling of records by diagnostic category, we identified a 5% coding error rate by HCFA. The records in error are listed in Attachment I.

At Hahnemann, quality of care is a primary focus for all services provided. For this reason, we were pleased, but not surprised, that our actual mortality rate in total and for each category fell within the predicted range (total hospital mortality rate=10%, predicated rate=8-15%). However, we would include a note of caution regarding the use of this information given the possibility of errors in the data and limitations with the present model.

The statistical model that has been developed measures the relationship between a limited number of patient characteristics and the risk of death, but this relationship may not accurately predict mortality rates. Further, these elements may not be the most significant factors influencing the risk of death, a limitation recognized by HCFA (see Federal Register, August 17, 1987). While age has been considered (the average age of patient who died here was 82), the model does not identify other key issues. For example, 10 of the patients who died after discharge were from a nursing home and were discharged back to the nursing home. Another patient who died after discharge was a terminal cancer patient.

Therefore, while the mortality data can serve as a gross indicator of care, it is only one indicator and the model itself is still restricted by the type of data elements that are included for analysis. We would encourage the addition of explanations to the public so that they can understand the limitations of the present model when attempting to interpret the data.

We appreciate the opportunity to review and comment on the mortality data prior to its publication.

Respectfully,

Robert M. Barry

Robert M. Barry
President

/nf
att

ATTACHMENT I

Incorrect Codes: Worcester Hahnemann Hospital
1986 HCFA Mortality Data

Patient ID#	Diagnostic Category	Comment
[redacted]	GC	died in hospital (not before discharge)
	GI	died in hospital
	GU	died in hospital
	PN	died in hospital
	PN	died in hospital
	SE	died in hospital
	UN	listed wrong date of last admission; died in hospital

Patient ID#	HCFA Dx Code	Corrected Code
[redacted]	4422	4413
	0381	486

Worcester Memorial Hospital
119 Belmont Street · Worcester, Massachusetts 01605
(617) 793-6611

October 21, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore MD 21207

Dear Doctor Roper:

Thank you for the opportunity to comment on the HCFA Mortality Data. Worcester Memorial Hospital is responding in order to correct three errors and to issue a statement to be published with the data (enclosed).

The category in question is sepsis. Upon careful chart review and confirmation with the attending physician, it was found that three of the patients did not die of sepsis, which changes the mortality rate. In the case of [redacted] it was confirmed with the physician that the patient died from the effects of pneumonia and cerebral vascular accident two weeks after discharge. For [redacted], the primary cause of death per autopsy report was cancer with massive metastasis to liver and perforation of the intestine from the primary tumor. [redacted] died of an upper G.I. bleed.

The list HCFA issued to Memorial Hospital is enclosed with the above mentioned cases highlighted. Also enclosed is supporting documentation as to cause of death for these patients. Please correct the data for this category in your records. Please let me know if there is any further information you need.

Sincerely,

David A. Barrett
President/Chief Executive Officer

Attachments

#10/38

A Major Affiliate of the University of Massachusetts Medical School

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

WORCESTER MEMORIAL HOSPITAL

HCFA MORTALITY DATA, 1986

Worcester Memorial Hospital welcomes this opportunity to comment on the data collected by HCFA in order to provide supplemental information and clarification which may aid the public in interpreting hospital mortality data.

HCFA data are not intended to measure hospital "performance," but are helpful to hospitals as a tool for ongoing evaluation of patient care.

Such evaluation is an important part of Worcester Memorial's vigorous Quality Assurance program which monitors and assesses the quality of patient care in the hospital.

Data presented by HCFA indicates that mortality rates at Worcester Memorial Hospital range from very low (in 15 out of 16 categories) to moderate/acceptable (in one category).

In this latter case, HCFA data puts sepsis mortality at Worcester Memorial Hospital at 46 percent in a range of 22 percent to 55 percent. However, closer study shows that this presentation is problematic since it does not take into account the age, multiple diseased state and critical condition of the patients with sepsis. All patients were admitted with sepsis. None of the cases were hospital-acquired.

It was further discovered that two of the patients included in this category did not die from sepsis, but from other causes after discharge from the hospital.

In a sample size so small (17 patients), this information lowers the sepsis mortality rate at Memorial from 46 percent to 38 percent -- a major difference.

It should also be noted that, in a majority of cases (12 of 14) where patients actually died from sepsis, death was expected by physicians and families alike.

Eight of the 14 patients were over age 80; 13 had serious accompanying conditions (co-morbitity) in addition to the conditions causing sepsis.

The overall profile is of severely ill, very elderly patients with multiple, serious accompanying conditions, where death was expected to occur: conditions not readily apparent in HCFA data as presented.

We at Worcester Memorial Hospital are proud of the quality of patient care and work diligently to ensure that the hospital's Quality Assurance program provides optimal patient care now and in the future.

#10/38

Michigan

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name / Location	Comment / Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADDISON COMMUNITY HOSPITAL ADDISON MI 49220	MI-17 *	124	6	6-19	1	0	0-98	.	.		2	50	0-90	.	.		7	43	15-78	4	25	1-75	25	8	8-40
ALBION COM HOSP ALBION MI 49224	MI-18	429	9	8-17	19	42	9-48	11	73	8-58	13	8	3-46	26	8	10-43	29	21	23-58	16	19	5-45	57	11	9-30
ALEXANDER BLAIN MEMORIAL H DETROIT MI 48207	MI-19 *	146	4	5-16	7	14	6-65	2	50	1-89	2	0	0-89	11	9	5-52	1	0	3-99	8	0	2-56	13	8	2-43
ALLEGAN GENERAL HOSPITAL ALLEGAN MI 49010	MI-20 *	567	13	10-18	36	22	11-40	28	39	17-52	11	27	5-52	40	18	13-40	20	45	21-63	14	7	3-45	64	16	14-36
ALPENA GENERAL HOSPITAL ALPENA MI 49707	MI-21	1335	11	9-16	85	22	13-34	38	32	18-47	29	21	9-40	71	17	14-35	73	38	27-50	28	18	10-43	118	13	13-29
ANDERSON MEM HOSP NORWAY MI 49870	MI-22 *	158	16	9-22	12	92	14-65	11	27	12-64	4	0	1-74	14	7	8-52	7	57	14-77	1	0	0-98	20	10	6-40
ANNAPOLIS HOSPITAL WAYNE MI 48184	MI-23	1861	13	10-17	99	22	18-38	63	30	19-42	45	7	8-33	160	23	16-30	79	48	28-50	58	29	12-37	216	20	14-28
BARAGA COUNTY MEMORIAL HOS L ANSE MI 49946	MI-24 *	356	10	9-18	20	35	18-59	22	9	12-49	4	50	2-74	27	15	9-40	16	56	20-66	12	8	4-50	26	12	6-37
BATTLE CREEK ADVENTIST HOS BATTLE CREEK MI 49016	MI-25 *	118	0	1-12	.	.					.	.		.	.		.	.		.	.		.	.	
BAY AREA MEDICAL CENTER ME MENOMINEE MI 49858	MI-26 *	609	12	7-15	56	25	12-36	22	41	11-47	11	18	3-50	31	26	12-42	9	22	16-73	5	20	4-72	42	24	12-38
BAY MEDICAL CENTER BAY CITY MI 48706	MI-27	2723	8	8-14	159	25	17-34	87	28	19-39	47	15	7-31	165	23	18-32	86	42	27-49	35	6	5-33	160	10	13-28
BAY OSTEOPATHIC HOSPITAL BAY CITY MI 48706	MI-28	522	15	8-16	22	27	8-43	14	57	11-56	6	17	2-64	40	45	13-39	17	41	19-63	8	50	7-65	74	12	9-27
BERRIEN GENERAL HOSP BERRIEN CENTER MI 49102	MI-29	451	23	11-20	27	37	15-50	27	48	15-49	14	7	5-46	23	30	11-45	21	43	21-62	6	17	8-74	51	41	11-35
BEYER MEM HOSP YPSILANTI MI 48197	MI-30	758	19	10-17	27	26	10-43	24	42	14-50	23	13	5-38	46	22	11-35	43	60	24-54	44	34	7-33	94	24	13-31
BI-COUNTY COMMUNITY HOSPIT WARREN MI 48089	MI-31	1711	16	10-17	123	33	19-38	63	40	19-43	38	24	11-39	143	25	15-30	65	51	26-51	40	15	9-36	181	27	14-28
BLODGETT MEMORIAL MEDICAL GRAND RAPIDS MI 49506	MI-32	2881	9	8-14	257	17	18-34	87	25	19-39	50	20	9-33	102	23	14-31	98	45	28-49	34	15	9-39	164	18	15-29
BON SECOURS HOSPITAL DETROIT MI 48230	MI-33	3313	12	9-15	232	22	15-30	142	28	22-39	91	19	10-29	173	25	17-31	92	39	30-51	93	18	11-32	263	23	15-27
BORGESS MED CTR KALAMAZOO MI 49001	MI-34	3472	11	8-15	230	29	19-35	100	22	19-38	77	19	10-31	191	20	15-28	144	32	28-46	53	8	8-33	206	16	13-26
BOTSFORD GEN HOSP FARMINGTON MI 48024	MI-35	1928	18	10-17	150	32	15-33	66	39	20-42	40	25	10-37	142	30	15-30	70	40	26-50	75	28	13-36	205	27	14-28
BRENT GENERAL HOSPITAL DETROIT MI 48221	MI-36	67	4	2-17	2	0	0-91	1	0	0-97	5	0	0-70	4	25	3-76	.	.		5	20	0-71	6	0	0-64
BRONSON METHODIST HOSPITAL KALAMAZOO MI 49006	MI-37	2661	13	9-16	267	20	16-31	75	36	19-40	59	20	10-33	108	30	16-32	109	40	30-50	72	14	10-32	208	21	14-28
BRONSON VICKSBURG HOSPITAL VICKSBURG MI 49097	MI-38	123	11	7-20	5	40	3-70	5	20	8-77	2	0	1-89	13	31	7-51	2	0	6-94	4	50	3-76	12	42	6-52
BURON VALLEY HOSPITAL MILFORD MI 48042	MI-39 *	367	11	10-20	20	20	13-53	17	12	15-58	10	0	5-55	21	10	8-43	21	43	23-64	18	0	6-45	38	16	9-36
BUTTERWORTH HOSPITAL GRAND RAPIDS MI 49503	MI-40	3641	12	10-16	407	22	18-32	147	27	22-38	72	22	10-31	152	29	16-31	161	35	30-47	72	17	12-35	249	18	14-27
CALUMET PUBLIC HOSPITAL LAURIUM MI 49913	MI-41 *	462	12	11-19	37	19	10-38	29	28	16-49	11	9	3-49	34	29	13-42	23	30	23-62	20	10	9-47	49	12	9-33
CARO COMMUNITY HOSP CARO MI 48723	MI-42 *	263	11	8-17	12	33	11-61	9	11	8-63	10	0	3-51	12	25	5-50	12	25	16-67	7	29	5-64	22	27	8-42

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADDISON COMMUNITY HOSPITAL ADDISON MI 49220	1	0	0-97	.	.								15	0	0-36	2	0	0-100				27	0	0-22	1	0	0-100
ALBION COM HOSP ALBION MI 49224	2	0	1-90	2	0	3-91	.	.		3	0	0-100	36	0	1-20	17	0	1-34	4	0	0-100	59	2	1-13	2	0	0-100
ALEXANDER BLAIN MEMORIAL H DETROIT MI 48207				4	25	6-80	1	0	0-99				11	9	0-46	6	0	0-66				20	0	0-29	7	0	0-86
ALLEGAN GENERAL HOSPITAL ALLEGAN MI 49010	5	40	6-76	11	36	12-65	19	11	3-35	.			50	6	2-18	40	3	1-20	4	0	0-100	44	2	1-16	32	0	0-22
ALPENA GENERAL HOSPITAL ALPENA MI 49707	7	14	4-66	8	25	11-70	53	4	3-21	1	100	0-100	148	7	3-11	61	11	1-16	8	0	0-91	148	3	2-10	88	2	0-9
ANDERSON MEM HOSP NORWAY MI 49870	1	100	1-97	.	.		.				.		14	0	1-37	2	0	0-92				17	6	0-32	6	0	0-98
ANNAPOLIS HOSPITAL WAYNE MI 48184	21	24	14-58	21	38	20-62	35	6	4-27	2	0	0-100	158	6	2-11	113	2	2-14	25	0	0-91	278	3	2-8	55	0	0-12
BARAGA COUNTY MEMORIAL HOS L ANSE MI 49946	9	11	4-60	1	0	0-97	5	0	0-71		.		46	2	1-17	11	0	0-55	1	0	0-100	35	0	1-19	15	7	0-49
BATTLE CREEK ADVENTIST HOS BATTLE CREEK MI 49016	.	.		.	.			.		.	.					.	.		.			.				.	
BAY AREA MEDICAL CENTER ME MENOMINEE MI 49858	1	0	0-98	7	43	12-76	13	23	1-41	1	0	0-100	86	5	1-12	42	2	0-19	1	0	0-100	36	6	1-20	62	0	0-12
BAY MEDICAL CENTER BAY CITY MI 48706	22	23	12-55	14	21	22-72	58	3	4-21	5	0	0-100	273	3	3-9	103	2	1-12	23	0	0-62	297	3	3-8	182	2	0-5
BAY OSTEOPATHIC HOSPITAL BAY CITY MI 48706	4	25	4-78	3	33	7-88	13	15	1-40		.		60	10	2-16	36	14	2-22	9	0	0-99	47	2	1-16	25	0	0-34
BERRIEN GENERAL HOSP BERRIEN CENTER MI 49102	16	31	7-53	15	33	15-62	8	0	1-54	1	0	0-100	40	8	2-21	21	5	1-29	8	0	0-99	24	13	1-25	16	6	0-43
BEYER MEM HOSP YPSILANTI MI 48197	5	40	4-73	9	44	12-69	14	0	2-41	.			75	12	1-13	47	13	2-20	[illegible]	0	0-100	88	6	2-12	20	5	0-32
BI-COUNTY COMMUNITY HOSPIT WARREN MI 48089	7	29	8-72	11	27	14-67	49	6	3-22	5	0	0-100	140	11	3-11	118	14	2-13	11	0	0-100	171	4	2-9	87	2	0-9
BLODGETT MEMORIAL MEDICAL GRAND RAPIDS MI 49506	18	6	8-52	12	8	12-63	86	10	5-19	109	0	0-8	267	7	3-10	96	2	1-13	30	0	0-75	370	6	3-8	336	0	0-4
BON SECOURS HOSPITAL DETROIT MI 48230	18	28	12-57	40	53	22-55	109	6	4-17	107	2	0-9	338	6	3-9	144	8	2-12	22	0	0-82	285	2	2-8	241	2	0-5
BORGESS MED CTR KALAMAZOO MI 49001	44	20	9-42	26	46	18-55	91	9	5-19	6	0	0-100	255	10	4-11	109	5	2-13	22	0	0-82	544	4	3-7	322	0	0-4
BOTSFORD GEN HOSP FARMINGTON MI 48024	10	50	11-68	17	59	17-61	79	11	5-20	10	0	0-98	190	5	3-10	114	14	3-14	24	0	0-65	158	8	2-10	92	1	0-8
BRENT GENERAL HOSPITAL DETROIT MI 48221	2	0	0-90	.	.		.	.		1	0	0-100	5	0	0-91	2	0	0-99		.		9	0	0-62	5	0	0-99
BRONSON METHODIST HOSPITAL KALAMAZOO MI 49006	16	13	8-54	31	39	22-58	75	[illegible]	3-18	31	6	0-42	287	7	3-10	117	2	1-12	26	0	0-35	191	4	3-10	183	1	0-5
BRONSON VICKSBURG HOSPITAL VICKSBURG MI 49097	.	.		.	.		5	0	1-67	.			8	0	0-66	3	0	0-84	2	0	0-100	6	0	0-69	4	0	0-99
BURON VALLEY HOSPITAL MILFORD MI 48042	2	50	4-93	7	29	12-75	10	10	1-47		.		32	3	1-21	23	13	1-27	1	0	0-100	39	8	1-19	13	8	0-63
BUTTERWORTH HOSPITAL GRAND RAPIDS MI 49503	26	19	13-53	17	35	21-66	127	9	4-16	26	0	0-77	319	4	3-9	235	3	2-10	46	2	0-16	377	7	2-7	250	0	0-5
CALUMET PUBLIC HOSPITAL LAURIUM MI 49913	5	20	5-76	3	100	6-87	13	0	1-40	4	0	0-100	61	5	1-15	22	0	0-29	2	0	0-100	31	0	1-21	11	0	0-57
CARO COMMUNITY HOSP CARO MI 48723	2	50	2-90	.									31	3	1-21	19	16	1-31				40	0	1-18	8	0	0-70

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name · Location	Comment/ Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
CARSON CITY HOSPITAL CARSON CITY MI 48811	MI-43	356	16	8-17	25	36	10-45	9	44	12-69	5	20	4-71	27	41	9-39	13	38	14-62	3	33	2-82	31	16	10-39
CENTRAL MICHIGAN COMMUNITY MOUNT PLEASANT MI 48858	MI-44	913	12	8-16	56	20	14-39	24	29	15-51	14	21	3-44	48	38	12-36	43	40	24-54	7	14	5-65	101	22	12-30
CHARLEVOIX AREA HOSP CHARLEVOIX MI 49720	MI-45 *	341	9	8-17	17	35	10-52	12	8	10-59	8	0	3-57	18	22	9-48	16	44	20-65	10	30	3-52	34	9	8-35
CHELSEA COMMUNITY HOSPITAL CHELSEA MI 48118	MI-46 *	601	10	8-16	40	13	12-40	17	41	13-55	6	17	1-63	27	19	13-46	25	36	23-61	15	20	4-45	51	24	12-36
CHIPPEWA CO WAR MEM HOSP SAULT SAINTE MARIE MI 49783	MI-47 *	757	13	10-18	43	49	19-48	32	19	17-49	15	27	11-55	44	20	12-37	34	41	22-54	10	20	7-59	98	16	13-31
CLARE COMMUNITY HOSP CLARE MI 48617	MI-48	505	12	9-17	18	22	12-54	20	20	12-51	9	33	5-58	46	28	11-35	22	45	22-62	5	0	3-70	76	17	10-28
CLINTON MEM HOSP SAINT JOHNS MI 48879	MI-49 *	379	11	9-18	21	24	9-46	17	24	13-54	8	13	2-56	25	28	12-46	10	30	15-70	9	22	6-59	57	11	10-32
COMMUNITY HEALTH CENTER COLDWATER MI 49036	MI-50 *	945	13	10-17	80	16	18-40	20	35	12-50	20	5	6-42	48	31	12-36	39	54	27-58	28	4	4-33	121	19	12-27
COMMUNITY HOSPITAL WATERVLIET MI 49098	MI-51 *	509	9	8-16	21	52	13-52	8	50	9-67	3	0	0-83	41	10	13-40	14	36	22-70	22	0	3-36	63	11	7-27
COMMUNITY HOSPITAL ASS OF BATTLE CREEK MI 49016	MI-52 *	1123	13	9-16	73	23	13-36	64	22	17-40	40	23	8-34	58	29	13-35	38	58	25-56	23	4	6-40	92	17	11-28
COMMUNITY HOSPITAL FOUNDAT ALMONT MI 48003	MI-53 *	84	13	4-19	5	20	2-68	1	0	0-97	3	0	0-82	2	50	1-89	5	60	8-78	1	0	0-99	6	33	7-72
COMMUNITY MEMORIAL HOSPITA CHEBOYGAN MI 49721	MI-54	634	11	10-18	30	20	12-44	26	15	17-53	11	0	4-51	53	17	13-36	30	33	22-57	21	14	6-42	84	20	12-31
COTTAGE HOSPITAL GROSSE POINTE MI 48236	MI-55	1257	14	10-17	121	40	17-36	56	32	20-44	18	22	7-46	68	26	15-37	40	23	25-55	28	7	5-36	95	22	12-30
CRITTENTON HOSP ROCHESTER MI 48063	MI-56	1825	12	9-15	145	31	16-34	60	22	20-44	43	16	10-37	108	25	14-31	87	34	28-50	44	14	7-33	140	24	14-30
CRYSTAL FALLS COMM HOSP CRYSTAL FALLS MI 49920	MI-57 *	199	16	9-20	20	15	8-46	11	27	9-60	12	33	3-48	10	20	7-57	8	50	13-72	4	0	2-75	34	18	9-36
DECKERVILLE COMMUNITY HOSP DECKERVILLE MI 48427	MI-58 *	127	20	10-24	5	40	4-71	7	29	9-70	6	50	2-63	18	22	9-48	9	44	11-67	.	.		26	31	9-42
DETROIT MEM HOSP DETROIT MI 48226	MI-59 *	263	6	5-15	14	14	10-56	9	11	9-64	.	.		10	20	5-53	9	11	15-72	7	14	3-61	9	11	2-53
DETROIT REC HOSP UNIV HLT DETROIT MI 48201	MI-60	1396	17	9-16	26	23	13-47	94	34	18-37	47	17	6-29	99	19	14-31	39	46	26-57	44	16	6-31	108	19	12-29
DICKINSON COUNTY MEMORIAL IRON MOUNTAIN MI 49801	MI-61 *	1025	9	8-15	58	24	14-38	21	24	11-47	33	12	9-38	52	13	13-37	36	33	22-54	16	0	4-44	94	14	11-29
DOCTORS HOSPITAL DETROIT MI 48207	MI-62	395	27	10-19	8	50	9-67	15	47	10-54	13	31	5-49	18	44	10-49	5	80	15-85	25	40	8-42	56	41	13-37
EATON RAPIDS COMMUNITY HOS EATON RAPIDS MI 48827	MI-63 *	265	12	11-21	13	31	13-62	10	0	6-56	4	25	1-74	17	12	6-44	14	50	18-66	4	25	1-74	40	13	10-37
EDWARD W SPARROW HOSIPAL LANSING MI 48912	MI-64	2031	13	10-16	238	28	18-34	75	36	19-40	51	14	8-32	74	23	15-35	64	45	28-52	42	21	8-35	126	17	13-29
EMMA L BIXBY HOSPITAL ADRIAN MI 49221	MI-65	1036	15	9-16	57	23	13-37	56	41	17-41	37	16	6-33	52	21	13-36	51	33	24-51	32	34	8-38	110	24	11-27
FERGUSON HOSPITAL GRAND RAPIDS MI 49502	MI-66 *	481	4	7-15	120	9	13-32	.	.		40	15	7-33	1	0	0-97	.	.		7	0	1-59	1	0	0-97
FLINT OSTEO HOSP FLINT MI 48502	MI-67	1941	12	10-17	118	25	17-36	59	27	21-46	29	3	5-33	103	24	16-33	65	43	28-53	78	19	13-35	215	19	13-26
FRANCIS A BELL MEMORIAL HO ISHPEMING MI 49849	MI-68	580	14	10-18	39	21	13-42	20	30	15-54	23	39	10-45	48	21	13-37	33	42	27-61	9	22	6-59	63	17	9-29

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
CARSON CITY HOSPITAL CARSON CITY MI 48811	7	71	10-74	6	33	8-74	9	11	1-50	1	0	0-100	43	7	1-17	21	0	0-32	6	0	0-100	25	8	1-24	33	0	0-24
CENTRAL MICHIGAN COMMUNITY MOUNT PLEASANT MI 48858	8	13	3-61	6	33	8-73	33	0	2-24	5	0	0-100	89	6	2-13	57	2	1-16	7	0	0-99	61	5	1-14	63	0	0-11
CHARLEVOIX AREA HOSP CHARLEVOIX MI 49720	2	0	1-90	1	0	1-98	12	0	1-43	.	.		48	2	1-16	7	0	1-57	3	0	0-100	40	3	1-17	17	0	0-51
CHELSEA COMMUNITY HOSPITAL CHELSEA MI 48118	4	50	3-78	9	22	12-70	1	0	0-100	1	0	0-100	39	5	2-21	44	0	0-19	3	0	0-100	38	0	1-18	15	7	0-58
CHIPPEWA CO WAR MEM HOSP SAULT SAINTE MARIE MI 49783	5	20	2-71	3	0	4-84	21	0	2-31	1	0	0-100	86	6	2-13	19	5	2-34	1	0	0-100	75	4	2-13	52	0	0-14
CLARE COMMUNITY HOSP CLARE MI 48617	10	30	7-61	6	33	6-70	6	0	0-63	.	.		69	4	1-13	20	10	1-30	13	0	0-91	57	4	1-14	12	0	0-54
CLINTON MEM HOSP SAINT JOHNS MI 48879	6	0	4-70	2	50	2-90	10	30	2-49	.	.		69	6	1-13	7	0	0-74	5	0	0-100	45	4	1-16	8	0	0-91
COMMUNITY HEALTH CENTER COLDWATER MI 49036	6	17	7-73	16	31	15-60	44	16	4-24	.	.		103	4	2-12	38	5	1-20	13	0	0-99	78	3	2-12	63	3	0-13
COMMUNITY HOSPITAL WATERVLIET MI 49098	9	22	10-68	3	0	6-87	1	0	0-100	.	.		78	3	2-13	21	0	1-30	1	0	0-100	63	3	2-14	24	8	0-40
COMMUNITY HOSPITAL ASS OF BATTLE CREEK MI 49016	12	33	9-61	12	8	11-61	35	11	4-26	6	17	0-99	118	5	2-11	56	4	1-16	10	0	0-100	74	4	2-13	77	0	0-10
COMMUNITY HOSPITAL FOUNDAT ALMONT MI 48003	.	.		.	.		4	0	0-80	.	.		25	4	0-25	5	0	0-87	.	.		6	0	0-79	3	0	0-100
COMMUNITY MEMORIAL HOSPITA CHEBOYGAN MI 49721	6	33	8-74	6	33	10-77	12	17	1-43	.	.		77	1	2-13	48	0	1-18	4	0	0-100	63	3	1-14	18	6	0-32
COTTAGE HOSPITAL GROSSE POINTE MI 48236	11	0	9-62	13	38	16-67	32	13	3-26	16	0	0-75	148	5	3-11	39	5	2-22	15	0	0-60	78	10	2-13	36	0	0-18
CRITTENTON HOSP ROCHESTER MI 48063	11	18	7-60	10	10	11-65	44	11	2-21	10	0	0-99	210	4	2-8	87	3	1-13	13	0	0-100	254	2	2-7	86	3	0-9
CRYSTAL FALLS COMM HOSP CRYSTAL FALLS MI 49920	.	.		1	100	3-99	.	.		.	.		22	0	0-27	.	.		1	0	0-100	25	12	1-25	4	0	0-100
DECKERVILLE COMMUNITY HOSP DECKERVILLE MI 48427	1	100	0-97	.	.		1	0	0-100	.	.		12	0	1-41	2	0	0-100	.	.		8	0	0-57	4	0	0-100
DETROIT MEM HOSP DETROIT MI 48226	5	60	7-78	1	0	2-98	1	0	0-98	5	0	0-100	20	5	0-30	13	0	0-47	3	0	0-100	30	0	0-21	.	.	
DETROIT REC HOSP UNIV HLT DETROIT MI 48201	12	25	11-64	18	67	19-63	68	15	5-21	2	0	0-100	68	21	2-16	52	13	1-18	2	0	0-100	103	11	2-12	55	2	0-13
DICKINSON COUNTY MEMORIAL IRON MOUNTAIN MI 49801	12	17	6-56	7	43	12-75	40	8	4-25	9	0	0-99	140	4	2-11	46	2	1-18	2	0	0-100	102	9	2-11	45	0	0-15
DOCTORS HOSPITAL DETROIT MI 48207	2	0	0-95	9	89	10-67	10	10	2-48	1	0	0-100	25	8	1-26	26	19	4-31	.	.		17	6	0-32	9	0	0-91
EATON RAPIDS COMMUNITY HOS EATON RAPIDS MI 48827	7	29	7-69	5	20	14-85	8	25	2-54	.	.		37	14	2-21	4	0	0-76	4	0	0-100	25	0	1-24	6	0	0-69
EDWARD W SPARROW HOSIPAL LANSING MI 48912	20	10	10-53	29	21	17-53	53	9	3-21	19	0	0-81	128	5	2-12	81	4	0-14	27	0	0-54	112	3	2-11	160	1	0-6
EMMA L BIXBY HOSPITAL ADRIAN MI 49221	14	43	6-53	10	50	14-69	37	5	2-22	11	0	0-99	105	7	2-11	63	3	1-15	15	0	0-100	94	10	2-11	35	0	0-22
FERGUSON HOSPITAL GRAND RAPIDS MI 49502	1	0	0-98	4	0	8-84	.	.		.	.		93	0	1-11	49	0	0-19	3	0	0-100	.	.		1	0	0-100
FLINT OSTEO HOSP FLINT MI 48502	34	21	11-47	11	45	20-74	47	6	3-21	10	0	0-95	200	9	4-12	118	9	3-15	21	0	0-98	195	3	2-9	100	3	0-8
FRANCIS A BELL MEMORIAL HO ISHPEMING MI 49849	3	33	1-82	5	20	6-75	16	25	2-36	4	0	0-100	72	7	2-14	14	0	0-48	3	0	0-100	42	2	1-18	37	5	0-19

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
GARDEN CITY OSTEOPATHIC HO GARDEN CITY MI 48135	MI-69	1801	20	11-18	94	19	13-33	80	36	19-40	49	27	9-34	144	26	17-32	84	51	29-51	72	21	10-32	184	35	15-30
GENESEE MEM HOSP FLINT MI 48502	MI-70 *	127	6	2-13	7	29	2-59	1	0	1-97	1	0	0-99	3	67	3-83	1	0	1-97	1	0	0-97	7	0	3-60
GERBER MEMORIAL HOSPITAL FREMONT MI 49412	MI-71	418	14	11-20	23	22	12-49	11	27	12-63	17	18	3-40	47	36	14-39	13	31	21-71	8	13	5-62	70	11	13-34
GLADWIN HOSPITAL GLADWIN MI 48624	MI-72	433	9	7-16	3	33	1-81	10	10	8-60	15	0	2-40	33	18	11-40	14	36	17-65	4	25	1-74	66	15	12-32
GRACE HOSP-NORTHWESTERN UN DETROIT MI 48235	MI-73 *	2033	17	10-17	166	31	18-35	69	19	17-39	54	26	7-30	107	30	15-31	84	30	27-49	73	18	9-31	155	25	14-29
GRAND VIEW HOSPITAL IRONWOOD MI 49938	MI-74	614	17	11-20	42	26	12-39	29	38	14-46	24	21	8-42	41	29	12-38	28	43	23-59	21	10	7-44	64	30	18-41
GRATIOT COMMUNITY HOSPITAL ALMA MI 48801	MI-75	994	14	9-16	55	25	17-43	36	22	15-44	37	19	9-37	66	20	13-34	40	48	29-60	26	15	7-39	76	22	11-31
HACKLEY HOSPITAL MUSKEGON MI 49443	MI-76 *	1848	12	9-15	167	19	15-32	72	21	17-38	40	18	9-36	95	31	15-33	70	43	27-51	27	15	9-42	134	26	13-28
HARBOR BEACH COMMUNITY HOS HARBOR BEACH MI 48441	MI-77 *	172	8	7-19	12	8	4-50	5	20	4-72	1	0	0-99	12	8	7-53	5	20	6-75	9	11	3-55	22	14	9-44
HARPER GRACE HOSP DETROIT MI 48201	MI-78	3969	10	7-13	462	28	19-33	83	11	15-35	55	22	9-33	148	12	14-28	80	39	27-49	108	29	12-32	205	26	13-26
HARRISON COMMUNITY HOSPITA MOUNT CLEMENS MI 48045	MI-79	191	9	5-15	5	20	3-71	2	50	1-89	10	0	2-50	5	20	3-70	7	86	14-76	2	0	0-93	19	32	7-43
HAYES GREEN BEACH MEMORIAL CHARLOTTE MI 48813	MI-80 *	263	17	9-20	5	60	6-75	14	36	12-58	8	0	3-57	15	40	8-50	9	67	16-73	9	33	3-55	28	11	10-41
HELEN NEWBERRY JOY HOSP NEWBERRY MI 49868	MI-81 *	156	8	9-22	5	80	11-82	6	0	5-69	5	0	3-70	20	15	8-44	5	40	6-74	10	20	5-55	25	0	6-37
HENRY FORD HOSPITAL DETROIT MI 48202	MI-82	5928	12	10-16	600	23	19-32	269	20	20-32	185	19	13-28	319	17	17-28	157	26	28-45	176	26	15-34	439	21	15-26
HERITAGE HOSP TAYLOR MI 48180	MI-83 *	1693	16	10-17	100	35	19-40	67	34	19-42	32	28	10-40	101	28	16-33	68	49	26-50	41	17	6-33	193	26	15-29
HERITAGE HOSPITAL MUSKEGON HEIGHTS MI 49444	MI-84 *	17	12	1-34	1	0	0-99		.		.	.		1	0	0-99	.	.		1	0	0-100	4	0	0-77
HERRICK MEM HOSP TECUMSEH MI 49286	MI-85 *	349	9	7-16	11	27	5-53	8	0	8-65	9	11	4-56	21	19	9-44	22	59	22-61	8	0	2-56	37	5	7-33
HILLS AND DALE GENERAL HOS CASS CITY MI 48726	MI-86 *	271	13	8-18	11	18	6-54	7	57	9-71	3	0	1-81	13	38	9-55	9	33	13-70	5	0	1-63	63	17	11-32
HILLSDALE COMMUNITY HEALTH HILLSDALE MI 49242	MI-87 *	462	11	8-17	14	14	4-46	25	40	14-49	12	17	3-48	27	19	9-40	26	31	22-58	5	0	4-72	75	5	9-28
HOLLAND COMMUNITY HOSPITAL HOLLAND MI 49423	MI-88	1357	11	9-15	101	22	18-38	46	28	16-43	28	14	5-34	61	26	14-36	53	43	27-55	39	8	6-33	104	13	11-28
HOLY CROSS HOSPITAL DETROIT MI 48234	MI-89	1585	14	11-17	106	25	15-34	77	30	17-38	49	18	9-34	124	29	15-30	107	41	29-49	54	20	11-37	115	17	13-30
HURLEY HOSP FLINT MI 48502	MI-90	1554	12	9-16	87	24	16-38	48	38	18-45	27	22	10-43	111	24	14-31	40	53	27-58	33	12	6-34	120	17	13-30
HURON MEMORIAL HOSPITAL BAD AXE MI 48413	MI-91 *	616	11	8-16	59	17	12-36	21	38	13-51	10	10	5-55	37	24	13-41	17	47	22-66	11	9	3-50	49	22	9-33
HUTZEL HOSPITAL DETROIT MI 48201	MI-92 *	1553	10	9-16	184	22	18-35	43	19	15-42	34	18	8-37	79	16	14-33	27	33	22-58	43	14	9-36	83	17	12-32
INGHAM MEDICAL CENTER LANSING MI 48910	MI-93 *	1832	8	7-14	112	13	14-34	41	24	16-44	19	11	7-44	77	18	15-35	96	26	27-47	27	19	6-38	125	14	11-26
IONIA CO MEMORIAL HOSPITAL IONIA MI 48846	MI-94	389	12	10-19	19	53	13-54	16	31	11-53	12	8	5-51	28	14	10-41	16	38	20-66	13	0	5-49	51	12	9-32

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
GARDEN CITY OSTEOPATHIC HO GARDEN CITY MI 48135	27	41	18-58	23	48	20-61	66	11	4-20	7	0	0-100	154	7	3-12	98	5	2-15	14	0	0-98	85	9	1-11	58	2	0-12
GENESEE MEM HOSP FLINT MI 48502	2	100	5-93	.	.		.	.		20	0	0-95	16	0	0-37	24	0	0-33	6	0	0-100	4	0	0-93	2	0	0-100
GERBER MEMORIAL HOSPITAL FREMONT MI 49412	9	33	7-64	3	67	10-91	21	14	2-32	.			36	6	1-20	10	0	0-48	6	0	0-100	31	10	1-22	24	0	0-32
GLADWIN HOSPITAL GLADWIN MI 48624	3	0	1-82	5	20	6-75	.	.		.	.		58	3	1-14	10	10	0-48	.	.		61	3	1-13	15	0	0-57
GRACE HOSP-NORTHWESTERN UN DETROIT MI 48235	18	33	10-54	72	49	25-51	27	19	2-27	6	0	0-100	188	7	2-9	133	10	2-13	15	7	0-99	232	4	2-8	69	1	0-11
GRAND VIEW HOSPITAL IRONWOOD MI 49938	6	33	6-72	16	50	23-70	26	8	2-27	1	0	0-100	71	7	2-14	16	0	3-39	4	0	0-100	58	7	1-14	23	4	0-34
GRATIOT COMMUNITY HOSPITAL ALMA MI 48801	11	18	4-56	7	71	12-76	54	19	4-21	.	.		120	7	2-10	23	17	1-28	7	0	0-100	88	5	2-12	71	1	0-10
HACKLEY HOSPITAL MUSKEGON MI 49443	12	17	5-55	17	53	20-66	59	5	4-20	35	0	0-65	174	4	3-10	89	4	1-13	42	0	0-53	102	10	2-12	95	1	0-8
HARBOR BEACH COMMUNITY HOS HARBOR BEACH MI 48441	1	100	2-98	3	0	4-84	1	0	0-99	.	.		28	0	1-22	7	0	0-66	2	0	0-100	8	0	0-54	5	0	0-92
HARPER GRACE HOSP DETROIT MI 48201	30	13	8-44	23	26	17-56	30	3	2-25	263	1	0-3	201	6	2-9	174	3	1-10	20	0	0-71	457	5	2-7	214	1	0-5
HARRISON COMMUNITY HOSPITA MOUNT CLEMENS MI 48045	1	0	0-100	1	0	0-97	2	0	0-97	.	.		12	0	1-41	3	0	0-93	1	0	0-100	14	0	0-39	29	0	0-42
HAYES GREEN BEACH MEMORIAL CHARLOTTE MI 48813	3	33	4-85	14	50	16-64	10	10	0-49	.	.		29	0	0-22	14	14	1-39	.	.		18	6	0-31	14	7	0-48
HELEN NEWBERRY JOY HOSP NEWBERRY MI 49868	4	25	4-79	.	.		.	.		.	.		16	6	0-34	.	.		.	.		21	0	1-27	8	0	0-98
HENRY FORD HOSPITAL DETROIT MI 48202	56	20	9-39	54	50	27-57	102	12	5-18	80	0	0-11	419	5	3-8	358	6	2-10	28	4	0-45	404	5	3-7	318	1	1-4
HERITAGE HOSP TAYLOR MI 48180	33	36	15-53	17	41	19-64	32	19	2-24	6	0	0-100	194	7	2-9	90	3	3-15	6	0	0-100	148	3	2-9	63	3	0-11
HERITAGE HOSPITAL MUSKEGON HEIGHTS MI 49444	.	.		1	100	1-97	.	.		.	.		3	0	0-93	.	.		.	.		.	.		1	0	0-100
HERRICK MEM HOSP TECUMSEH MI 49286	3	0	1-82	6	17	7-72	2	0	0-97	.	.		51	2	1-15	21	5	0-30	3	0	0-100	35	0	1-19	11	0	0-83
HILLS AND DALE GENERAL HOS CASS CITY MI 48726		.		4	25	5-80	.			.			38	3	1-19	15	7	0-38	2	0	0-100	27	4	1-23	3	0	0-100
HILLSDALE COMMUNITY HEALTH HILLSDALE MI 49242	4	0	2-76	5	20	5-74	10	10	2-48	.	.		50	8	1-15	12	25	0-44	7	0	0-100	60	7	1-14	8	0	0-84
HOLLAND COMMUNITY HOSPITAL HOLLAND MI 49423	9	11	4-60	15	27	15-62	42	14	4-25	5	0	0-99	172	9	3-10	94	1	1-13	22	0	0-85	105	4	2-11	79	0	0-10
HOLY CROSS HOSPITAL DETROIT MI 48234	13	15	8-58	14	50	16-65	34	15	3-26	10	0	0-97	164	9	4-12	67	6	2-16	16	0	0-95	231	2	2-8	49	2	0-14
HURLEY HOSP FLINT MI 48502	31	19	8-44	12	50	18-70	37	14	3-24	1	0	0-100	108	10	2-12	45	11	1-19	13	0	0-98	207	3	2-9	52	0	0-14
HURON MEMORIAL HOSPITAL BAD AXE MI 48413	2	0	4-92	3	67	8-90	31	0	3-27	.			88	9	3-14	32	3	0-23	8	13	0-81	28	4	1-22	62	0	0-13
HUTZEL HOSPITAL DETROIT MI 48201	67	16	7-36	9	22	17-76	17	6	2-35	2	0	0-100	138	4	3-12	78	6	1-14	16	0	0-45	181	3	2-9	79	1	0-9
INGHAM MEDICAL CENTER LANSING MI 48910	13	15	5-53	21	33	12-52	36	8	2-22	8	0	0-100	98	3	2-12	62	3	1-15	11	9	0-100	406	3	2-7	153	3	0-6
IONIA CO MEMORIAL HOSPITAL IONIA MI 48846	5	0	6-76	8	25	13-73	8	13	2-54	.	.		57	5	2-16	3	0	0-91	3	0	0-100	54	4	1-15	14	7	0-47

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
IRON COUNTY GENERAL HOSPIT IRON RIVER MI 49935	MI-95	298	14	10-20	11	45	12-65	14	36	10-55	12	25	4-50	21	14	9-45	14	64	20-68	10	0	2-51	34	18	12-42
JACKSON OSTEOPATHIC HOSPIT JACKSON MI 49202	MI-96	413	7	7-15	26	12	9-43	7	43	9-70	15	7	4-44	23	0	9-43	16	31	16-61	19	0	3-38	48	6	7-29
KALKASKA MEMORIAL HEALTH C KALKASKA MI 49646	MI-97 *	105	11	8-22	2	100	3-91	4	25	2-75	.	.		15	7	8-50	4	75	6-80	3	0	1-82	20	15	5-40
KELSEY MEMORIAL HOSPITAL LAKEVIEW MI 48850	MI-98 *	214	15	8-18	6	33	3-66	11	36	11-62	4	0	1-74	8	38	5-60	9	11	12-68	7	14	1-60	39	26	9-35
KENT COMMUNITY HOSPITAL GRAND RAPIDS MI 49503	MI-99 *	212	0	1-10	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
KERN HOSPITAL WARREN MI 48091	MI-100*	35	0	0-33	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
LACROIX HOSP WHITE PINE MI 49971	MI-101*	30	13	2-26	1	0	1-97	.	.		1	0	0-99	7	43	3-61	.	.		.	.		.	.	
LAKE VIEW COMMUNITY HOSPIT PAW PAW MI 49079	MI-102	401	9	9-18	38	16	9-37	9	22	16-73	18	17	5-42	29	21	11-42	11	45	20-73	15	13	5-47	51	12	10-33
LAKESHORE COMM HOSP SHELBY MI 49455	MI-103*	174	13	7-19	8	38	6-63	6	33	8-73	8	25	4-59	12	0	5-51	3	33	3-83	5	0	2-69	16	13	8-49
LANSING GENERAL HOSPITAL LANSING MI 48909	MI-104	1201	13	9-16	74	34	15-37	40	30	16-45	35	11	9-37	48	29	12-36	45	49	26-55	27	7	8-41	113	12	13-30
LAPEER CO GEN HOSP LAPEER MI 48446	MI-105	1073	13	10-17	48	17	14-41	26	31	15-49	36	8	10-38	49	35	14-39	71	45	29-53	27	22	5-36	89	16	11-29
LEE MEMORIAL HOSPITAL DOWAGIAC MI 49047	MI-106*	456	11	8-16	22	36	12-50	9	22	7-61	11	27	6-54	36	22	12-40	15	20	20-66	18	11	4-42	46	11	8-31
LEELANAU MEMORIAL HOSPITAL NORTHPORT MI 49670	MI-107	128	10	7-20	12	25	5-52	2	0	2-90	1	0	1-97	5	40	2-68	4	0	10-86	1	0	0-98	21	29	10-47
LEILA HOSPITAL & HEALTH CE BATTLE CREEK MI 49016	MI-108*	1857	13	9-16	151	34	18-36	77	27	19-40	53	21	10-34	106	30	17-35	35	37	26-59	64	11	8-31	192	14	11-24
MACKINAC STRAITS HOSP HLT SAINT IGNACE MI 49781	MI-109*	62	19	9-28	4	100	6-81	5	40	7-76	.	.		2	0	1-89	5	40	8-77	3	0	0-88	14	7	3-43
MADISON COMMUNITY HOSPITAL MADISON HEIGHTS MI 48071	MI-110*	201	8	6-17	12	8	5-50	9	11	8-62	3	0	1-81	7	14	4-62	8	63	14-74	4	50	0-76	25	4	5-34
MARLETTE COMMUNITY HOSPITA MARLETTE MI 48453	MI-111*	255	9	8-18	16	6	7-48	5	20	4-72	1	100	0-97	14	14	8-52	19	32	20-62	.	.		28	7	10-42
MARQUETTE GENERAL HOSPITAL MARQUETTE MI 49855	MI-112	2119	10	9-15	199	22	21-37	58	34	17-41	34	18	8-37	81	16	18-38	65	35	24-49	25	20	12-47	92	15	13-31
MCKENZIE MEMORIAL HOSPITAL SANDUSKY MI 48471	MI-113*	302	15	9-19	15	33	9-53	5	20	7-76	13	23	7-52	38	18	11-38	17	65	23-67	5	0	1-69	29	7	9-40
MCLAREN GEN HOSP FLINT MI 48502	MI-114	2650	10	8-15	157	25	17-35	117	17	19-37	48	17	9-33	157	18	16-30	95	38	28-49	52	15	8-33	164	16	13-27
MCPHERSON COMMUNITY HLTH C HOWELL MI 48843	MI-115	805	12	8-16	49	18	12-38	21	24	13-51	23	26	8-43	51	24	11-34	26	46	23-60	19	0	3-39	81	16	12-32
MECOSTA COUNTY GENERAL HOS BIG RAPIDS MI 49307	MI-116	520	11	9-17	45	24	14-42	18	17	10-50	18	17	4-40	37	22	10-36	22	36	21-61	6	17	1-64	44	18	11-36
MEMORIAL HOSPITAL OWOSSO MI 48867	MI-117	1049	13	8-16	73	27	15-38	44	23	17-44	30	7	5-33	67	19	14-34	35	49	23-55	22	18	4-37	116	25	12-28
MEMORIAL MEDICAL CTR OF WE LUDINGTON MI 49431	MI-118	786	12	9-17	75	25	15-37	32	31	15-47	15	20	4-43	46	20	14-39	42	45	27-57	11	18	5-53	62	11	10-31
MERCY HOSPITAL CADILLAC MI 49601	MI-119	1291	13	8-15	78	31	16-38	32	28	14-45	32	16	7-36	84	27	15-33	53	53	25-52	24	17	8-42	120	26	12-28
MERCY HOSPITAL GRAYLING MI 49738	MI-120	800	10	10-17	28	32	14-48	24	33	13-49	20	5	4-38	56	18	13-35	43	28	25-55	18	11	10-51	104	14	12-29

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
IRON COUNTY GENERAL HOSPIT IRON RIVER MI 49935	4	0	3-77	6	50	9-75	.	.	.	.	.		34	0	1-21	3	0	0-82	3	0	0-100	28	0	1-22	10	10	0-64
JACKSON OSTEOPATHIC HOSPIT JACKSON MI 49202	1	0	0-97	4	50	12-88	.	.		4	0	0-100	56	4	1-15	35	6	1-21	8	0	0-100	35	6	1-20	14	0	0-54
KALKASKA MEMORIAL HEALTH C KALKASKA MI 49646	1	0	0-97	2	50	6-94	.	.		.	.		7	0	0-68	6	0	0-69	.	.		12	0	0-44	2	0	0-100
KELSEY MEMORIAL HOSPITAL LAKEVIEW MI 48850	1	0	0-100	2	50	4-92	1	100	1-97	.	.		41	5	1-18	2	0	0-95	6	0	0-99	12	17	0-42	4	0	0-100
KENT COMMUNITY HOSPITAL GRAND RAPIDS MI 49503	.	.		.	.		.	.		.	.		.	.			.		.	.		.	.		.		
KERN HOSPITAL WARREN MI 48091	.	.		.	.		.	.		.	.		.	.			.		.	.		.	.		23	0	0-67
LACROIX HOSP WHITE PINE MI 49971	.	.		.	.		.	.		.	.		3	0	0-94	1	0	0-100		.		3	0	0-97	3	0	0-100
LAKE VIEW COMMUNITY HOSPIT PAW PAW MI 49079	5	0	2-71	3	33	8-89	18	0	2-34	.	.		52	4	1-16	21	0	0-32	4	0	0-100	18	6	0-31	20	0	0-43
LAKESHORE COMM HOSP SHELBY MI 49455	8	63	6-66	1	0	0-97	2	0	0-92	.	.		31	6	1-21	3	0	0-82	2	0	0-100	17	0	1-32	13	0	0-53
LANSING GENERAL HOSPITAL LANSING MI 48909	6	33	4-69	17	53	25-71	27	26	2-28	3	0	0-100	114	7	2-11	67	7	2-16	17	0	0-90	147	4	2-9	73	0	0-11
LAPEER CO GEN HOSP LAPEER MI 48446	10	30	17-74	22	36	17-57	30	13	2-26	2	0	0-100	105	7	3-13	52	2	1-17	10	0	0-98	122	3	2-11	40	5	0-17
LEE MEMORIAL HOSPITAL DOWAGIAC MI 49047	3	33	3-84	4	50	7-82	14	0	1-38	.	.		72	7	2-14	17	0	1-34	3	0	0-100	46	7	1-16	12	0	0-74
LEELANAU MEMORIAL HOSPITAL NORTHPORT MI 49670	1	0	0-99	1	100	1-97	1	0	0-100	.	.		19	0	0-30	6	0	0-65	.	.		8	0	0-69	10	0	0-77
LEILA HOSPITAL & HEALTH CE BATTLE CREEK MI 49016	12	33	9-60	18	33	17-60	58	12	4-22	4	0	0-99	189	7	2-9	96	3	2-14	16	0	0-99	127	9	2-11	125	3	0-7
MACKINAC STRAITS HOSP HLT SAINT IGNACE MI 49781	1	100	1-97	1	100	3-99	1	0	0-100	.	.		3	0	0-91	2	0	0-96	.	.		5	0	0-74	.	.	
MADISON COMMUNITY HOSPITAL MADISON HEIGHTS MI 48071	1	0	0-97	1	0	0-97	.	.		3	0	0-100	35	6	1-20	17	0	0-41	2	0	0-100	13	0	0-40	4	0	0-98
MARLETTE COMMUNITY HOSPITA MARLETTE MI 48453	1	0	1-97	.	.		6	0	0-68	.	.		42	5	1-18	9	11	0-56	3	0	0-100	37	8	1-19	6	17	0-90
MARQUETTE GENERAL HOSPITAL MARQUETTE MI 49855	27	26	9-47	4	25	9-84	68	4	5-21	24	0	0-76	176	7	3-12	73	7	1-15	12	0	0-98	272	6	3-9	147	1	0-6
MCKENZIE MEMORIAL HOSPITAL SANDUSKY MI 48471	3	0	1-82	1	100	2-98	7	43	0-59	1	0	0-100	38	11	1-19	29	10	1-24	4	25	0-82	26	0	0-23	4	0	0-85
MCLAREN GEN HOSP FLINT MI 48502	13	8	5-54	24	25	22-61	66	12	4-19	1	0	0-100	268	6	3-9	130	3	1-11	18	0	0-91	345	5	3-8	160	3	0-6
MCPHERSON COMMUNITY HLTH C HOWELL MI 48843	7	0	5-67	6	0	9-75	30	13	1-24	4	25	0-100	85	7	2-12	37	3	1-20	6	0	0-100	86	7	2-12	41	5	0-17
MECOSTA COUNTY GENERAL HOS BIG RAPIDS MI 49307	4	25	5-80	6	17	10-76	20	10	2-31	.	.		70	3	3-16	26	0	0-29	3	0	0-100	43	7	2-18	31	0	0-25
MEMORIAL HOSPITAL OWOSSO MI 48867	9	22	2-57	5	40	8-78	14	21	1-38	.	.		141	4	2-10	32	0	0-23	13	0	0-97	83	5	1-12	29	3	0-30
MEMORIAL MEDICAL CTR OF WE LUDINGTON MI 49431	3	0	1-83	6	50	13-80	28	4	1-25	1	0	0-100	86	2	1-11	35	3	1-21	11	0	0-100	62	3	1-14	59	0	0-12
MERCY HOSPITAL CADILLAC MI 49601	12	17	5-56	.	.		29	14	2-25	1	0	0-100	176	4	2-9	75	1	1-14	15	0	0-100	106	4	2-11	87	1	0-9
MERCY HOSPITAL GRAYLING MI 49738	3	0	2-83	11	55	13-66	32	3	3-26	.	.		100	6	2-12	17	24	1-34	4	0	0-100	68	1	1-13	50	2	0-15

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MERCY HOSPITAL MUSKEGON MI 49443	MI-121	1934	11	9-15	138	17	17-35	71	24	17-39	49	16	8-32	100	31	13-30	89	33	26-47	48	6	6-30	111	20	12-28
MERCY HOSPITAL PORT HURON MI 48060	MI-122	1085	12	9-16	87	37	18-39	26	12	12-46	16	6	8-49	50	34	13-37	28	29	21-56	28	46	16-51	79	25	15-35
MERCY MEMORIAL MEDICAL CEN ST JOSEPH MI 49085	MI-123*	2291	13	10-16	177	25	19-36	83	39	20-40	40	28	9-35	163	16	15-29	95	47	28-49	53	6	9-34	189	19	14-28
MERCY-MEMORIAL HOSPITAL MONROE MI 48161	MI-124	1494	12	9-16	77	30	14-36	68	31	18-40	50	14	7-31	93	24	15-33	51	49	29-56	31	3	6-35	172	16	13-28
METROPOLITAN HOSPITAL DETROIT MI 48206	MI-125*	423	12	8-17	41	20	9-36	17	29	11-51	12	8	3-48	31	19	10-39	21	33	19-59	16	31	6-47	32	28	8-36
METROPOLITIAN HOSPITALIC H GRAND RAPIDS MI 49506	MI-126*	1637	12	8-15	131	23	17-36	63	24	17-40	27	11	6-36	78	24	15-34	40	53	25-55	28	7	5-36	145	19	12-27
MICHIGAN OSTEO MED CTR INC DETROIT MI 48208	MI-127	1034	9	8-15	42	17	18-47	40	13	14-41	25	24	10-45	92	12	13-30	15	13	17-63	38	16	9-37	86	27	14-33
MIDLAND HOSPITAL ASSOCIATI MIDLAND MI 48640	MI-128	1839	11	9-15	180	26	18-35	70	24	17-39	34	15	8-36	65	12	14-35	64	38	27-52	33	18	10-40	114	13	13-30
MILTON COMMUNITY HOSPITAL RIVER ROUGE MI 48218	MI-129*	54	9	4-22	3	67	5-86	1	0	0-97	1	0	0-97	5	20	2-69	1	0	0-97	2	0	0-90	4	0	1-74 4
MORENCI AREA HOSP MORENCI MI 49256	MI-130*	102	12	7-21	2	100	5-94	1	100	2-98	.	.		14	14	6-48	4	25	9-85	1	0	0-98	19	5	5-40
MOUNT CLEMENS GENERAL HOSP MOUNT CLEMENS MI 48043	MI-131*	1533	14	9-16	108	31	16-36	51	33	16-41	37	16	7-34	114	27	14-30	58	40	25-51	28	14	4-34	170	22	12-27
MT CARMEL MERCY HOSPITAL A DETROIT MI 48235	MI-132	2736	13	10-16	178	22	17-33	104	21	19-38	51	12	8-31	216	20	16-29	90	33	29-50	94	16	10-31	208	17	14-28
MUNISING MEM HOSP MUNISING MI 49862	MI-133	184	16	7-18	2	0	0-92	7	57	7-67	5	40	1-68	12	25	6-52	5	60	8-77	8	25	9-67	22	18	6-40
MUNSON MEDICAL CENTER TRAVERSE CITY MI 49684	MI-134*	2536	10	8-15	197	20	17-34	79	35	17-38	41	22	7-33	110	25	15-32	84	29	28-50	39	10	7-34	180	19	14-28
MUSKEGON GENERAL HOSPITAL MUSKEGON MI 49442	MI-135	605	13	8-16	34	15	11-41	26	23	14-48	13	23	5-48	36	19	10-37	20	45	23-64	23	22	8-43	53	23	10-33
NEW CENTER HOSPITAL DETROIT MI 48202	MI-136*	119	13	7-20	5	40	3-71	14	29	12-58	.	.		6	17	2-63	1	100	1-97	12	8	7-54	5	20	3-71
NORTH DETROIT GEN HOSP DETROIT MI 48212	MI-137	1324	15	9-16	46	35	13-41	70	21	18-40	25	4	7-40	77	26	14-34	58	38	25-51	84	33	12-34	128	24	13-29
NORTH OTTAWA COMM HOSP GRAND HAVEN MI 49417	MI-138*	721	14	9-16	53	25	14-40	22	41	12-49	19	11	7-44	35	34	14-43	32	44	22-55	19	32	7-45	69	20	11-32
NORTHERN MICHIGAN HOSPITAL PETOSKEY MI 49770	MI-139	2239	11	9-15	259	26	18-34	75	24	17-38	41	12	8-34	77	25	15-35	96	25	25-45	29	14	8-40	109	25	13-30
NORTHLAND MEDICAL CENTER STANWOOD MI 49346	MI-140*	3	33	0-82	1	100	0-98	.	.		.	.		.	.		.	.		.	.		2	0	0-91
NORTHWEST GENERAL OSTEOPAT DETROIT MI 48204	MI-141	264	6	7-17	10	30	7-58	16	19	12-55	7	29	5-65	22	0	9-44	2	0	2-90	11	0	3-50	25	8	8-41
OAKLAND GENERAL HOSPITAL MADISON HEIGHTS MI 48071	MI-142	1209	16	10-17	76	28	18-40	27	22	13-46	35	17	7-35	93	23	13-30	55	42	25-52	45	29	8-35	137	28	12-28
OAKLAWN HOSPITAL MARSHALL MI 49068	MI-143	465	12	7-15	15	20	7-50	8	13	8-66	14	29	4-46	34	38	10-37	14	36	17-64	14	14	2-44	58	24	9-30
OAKWOOD DOWNRIVER MEDICAL LINCOLN PARK MI 48146	MI-144*	310	14	8-18	20	25	11-50	8	25	9-67	10	20	7-59	25	16	8-40	12	42	21-73	10	20	3-52	28	25	10-42
OAKWOOD HOSPITAL DEARBORN MI 48124	MI-145	4515	14	10-17	431	28	19-33	182	29	23-38	75	7	9-30	297	25	17-28	211	45	31-47	117	18	12-32	324	19	15-27
OCEANA HOSPITAL HART MI 49420	MI-146*	164	11	8-20	3	33	1-81	10	30	10-62	7	0	2-60	16	31	9-50	6	50	10-75	10	20	6-57	17	12	6-44

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MERCY HOSPITAL MUSKEGON MI 49443	38	18	11-46	29	31	18-54	41	10	3-23	4	0	0-100	191	3	3-10	73	0	1-14	11	9	0-98	220	5	3-9	146	1	0-6
MERCY HOSPITAL PORT HURON MI 48060	6	33	3-68	14	14	16-65	24	4	2-29	2	0	0-100	95	5	2-13	61	3	1-16	6	0	0-100	97	2	2-12	86	0	0-9
MERCY MEMORIAL MEDICAL CEN ST JOSEPH MI 49085	18	22	8-52	24	33	18-56	60	8	3-20	2	0	0-100	225	4	3-10	82	6	1-14	17	0	0-57	263	3	2-8	109	0	0-7
MERCY-MEMORIAL HOSPITAL MONROE MI 48161	13	38	8-57	10	30	10-64	42	7	3-22	7	0	0-99	126	8	3-12	77	6	1-14	13	0	0-99	158	1	2-9	54	2	0-13
METROPOLITAN HOSPITAL DETROIT MI 48206	3	0	0-88	1	100	2-99	9	11	0-50	.	.		55	2	1-15	32	9	0-24	2	0	0-100	57	2	1-14	13	0	0-77
METROPOLITIAN HOSPITALIC H GRAND RAPIDS MI 49506	13	38	7-56	11	27	14-67	49	14	3-20	9	0	0-99	162	6	3-11	137	4	2-12	23	0	0-76	75	11	2-13	169	2	1-6
MICHIGAN OSTEO MED CTR INC DETROIT MI 48208	16	25	8-53	16	19	16-61	4	25	0-79	3	0	0-100	64	3	1-14	47	9	1-19	5	0	0-100	81	4	2-12	12	0	0-43
MIDLAND HOSPITAL ASSOCIATI MIDLAND MI 48640	18	28	8-51	19	47	16-58	55	11	5-23	3	0	0-100	163	6	2-10	80	8	2-15	14	0	0-99	146	3	2-10	177	1	0-5
MILTON COMMUNITY HOSPITAL RIVER ROUGE MI 48218	.	.		1	0	0-97	.	.		.	.		6	0	0-66	4	0	0-86	.	.		7	0	0-66	6	0	0-87
MORENCI AREA HOSP MORENCI MI 49256	.	.		.	.		.	.		.	.		11	18	0-47	2	0	0-94	.	.		16	0	0-34	4	0	0-99
MOUNT CLEMENS GENERAL HOSP MOUNT CLEMENS MI 48043	11	36	8-60	15	27	17-64	25	8	2-28	5	0	0-100	147	6	2-10	76	9	2-16	22	0	0-72	163	6	2-9	63	3	0-12
MT CARMEL MERCY HOSPITAL A DETROIT MI 48235	35	29	8-42	36	39	24-58	62	10	5-22	7	0	0-80	249	8	3-9	116	11	3-15	18	6	0-53	300	5	3-8	136	2	0-7
MUNISING MEM HOSP MUNISING MI 49862	2	0	0-91	4	0	6-81	1	0	0-100	.	.		19	0	0-31	5	0	0-87	.	.		14	7	1-37	5	0	0-98
MUNSON MEDICAL CENTER TRAVERSE CITY MI 49684	16	31	8-55	16	31	19-65	48	13	3-22	27	0	0-66	205	6	3-10	133	3	1-11	32	0	0-66	221	3	2-8	222	1	0-5
MUSKEGON GENERAL HOSPITAL MUSKEGON MI 49442	4	25	2-76	6	67	9-75	28	14	2-26	.	.		62	6	2-15	32	9	0-22	5	0	0-100	32	3	1-21	55	0	0-13
NEW CENTER HOSPITAL DETROIT MI 48202	1	0	0-98	.	.		1	0	0-99	.	.		3	0	0-82	5	0	0-97	.	.		14	21	0-37	5	20	0-100
NORTH DETROIT GEN HOSP DETROIT MI 48212	5	40	3-72	14	50	17-65	28	0	4-31	7	0	0-100	96	8	3-15	52	6	3-20	7	0	0-88	138	7	2-10	62	2	0-11
NORTH OTTAWA COMM HOSP GRAND HAVEN MI 49417	5	40	7-77	6	33	9-75	32	3	2-24	1	0	0-100	84	10	2-12	28	0	0-25	15	0	0-99	46	2	1-16	56	0	0-15
NORTHERN MICHIGAN HOSPITAL PETOSKEY MI 49770	30	13	7-43	19	21	19-62	41	17	3-24	28	0	0-77	186	5	2-10	85	1	1-13	21	0	0-33	253	5	3-8	207	1	0-5
NORTHLAND MEDICAL CENTER STANWOOD MI 49346	.	.		.	.		.	.		.	.		.	.		.	.		.	.			.			.	
NORTHWEST GENERAL OSTEOPAT DETROIT MI 48204	2	0	1-90	1	100	1-98	3	0	0-90	.	.		25	4	1-25	19	5	0-31	1	0	0-100	37	3	1-18	5	0	0-100
OAKLAND GENERAL HOSPITAL MADISON HEIGHTS MI 48071	10	30	4-58	19	53	19-63	27	4	2-28	.	.		109	9	3-13	48	2	2-19	10	0	0-100	125	2	2-9	47	4	0-14
OAKLAWN HOSPITAL MARSHALL MI 49068	4	25	2-77	9	22	10-66	6	0	0-65	3	0	0-100	66	8	1-14	22	5	1-28	3	0	0-100	45	7	1-16	26	8	0-36
OAKWOOD DOWNRIVER MEDICAL LINCOLN PARK MI 48146	2	50	0-91	1	0	0-97	8	0	0-54	3	33	0-100	24	8	1-26	16	0	0-53	1	0	0-100	39	8	1-19	15	7	0-63
OAKWOOD HOSPITAL DEARBORN MI 48124	54	26	13-45	44	34	24-56	125	9	5-16	25	0	0-79	445	7	3-8	189	8	3-13	43	0	0-70	432	5	3-7	218	1	0-5
OCEANA HOSPITAL HART MI 49420	3	0	1-82	.	.		.	.		.	.		21	0	1-28	1	0	0-100	.	.		24	0	1-25	2	0	0-99

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ONTONAGON MEMORIAL HOSPITA ONTONAGON MI 49953	MI-147*	229	6	6-16	2	0	3-91	5	40	6-75	3	33	0-82	23	4	9-42	6	33	9-74	3	0	1-81	39	5	6-30
ORCHARD HILLS HOSPITAL BELDING MI 48809	MI-148*	87	20	9-25	4	50	4-77	2	0	1-89	1	0	0-97	8	13	3-57	3	33	8-89	6	17	5-69	18	28	7-44
OTSEGO COUNTY MEM HOSP GAYLORD MI 49735	MI-149*	470	11	8-16	32	28	13-44	18	17	9-48	13	31	5-48	32	31	14-44	23	35	19-58	7	14	2-60	49	18	9-33
OUTER DR HOSP LINCOLN PARK MI 48146	MI-150	830	13	9-16	36	39	11-41	52	19	17-42	9	44	2-52	61	13	12-33	42	57	26-56	21	5	5-40	99	16	9-25
PAUL OLIVER MEM HOSP FRANKFORT MI 49635	MI-151*	275	12	7-17	10	40	11-65	12	42	8-56	10	20	2-50	11	27	6-54	15	20	19-66	5	0	2-69	14	36	5-47
PAWATING HOSPITAL NILES MI 49120	MI-152*	1085	15	9-16	63	33	14-37	39	36	17-46	19	16	5-41	75	31	15-35	32	47	25-58	34	6	5-33	113	22	13-29
PENNOCK HOSPITAL HASTINGS MI 49058	MI-153*	787	10	9-17	62	29	13-36	28	18	13-46	27	15	8-40	40	5	11-37	33	42	26-59	15	7	5-46	92	10	12-30
PIPP COMMUNITY HOSP PLAINWELL MI 49080	MI-154*	272	13	7-17	14	29	4-45	9	44	7-61	12	17	6-52	29	28	9-39	6	33	8-73	7	0	4-63	36	22	7-34
PONTIAC GENERAL HOSPITAL PONTIAC MI 48053	MI-155*	1569	14	10-17	111	27	19-39	54	28	17-42	50	26	8-32	121	22	16-32	50	42	27-54	41	32	9-36	168	21	14-28
PONTIAC OSTEOPATHIC HOSPIT PONTIAC MI 48058	MI-156	1183	14	9-16	57	16	12-37	37	30	14-42	34	12	7-35	102	35	15-32	49	49	25-52	30	23	6-36	113	22	13-29
PORT HURON HOSPITAL PORT HURON MI 48060	MI-157	1791	11	8-15	89	25	17-38	79	34	20-41	21	33	6-41	111	27	15-31	67	39	24-48	51	33	12-39	113	15	12-28
PORTAGE VIEW HOSPITAL HANCOCK MI 49930	MI-158*	511	13	10-19	37	19	13-42	26	42	15-50	15	13	6-47	38	21	12-38	26	46	24-61	5	20	2-69	57	7	10-32
PROVIDENCE HOSP SOUTHFIELD MI 48037	MI-159	3747	12	10-16	308	20	16-31	133	20	20-36	118	12	10-27	244	23	17-29	208	37	32-47	87	18	11-33	296	21	15-28
REDFORD COMMUNITY HOSPITAL REDFORD MI 48240	MI-160	344	20	10-19	14	50	11-57	12	42	10-59	5	80	6-74	18	28	9-47	13	54	19-68	18	28	6-45	38	37	13-41
REED CITY HOSPITAL REED CITY MI 49677	MI-161*	430	13	10-19	28	36	11-44	23	17	14-50	8	25	6-62	27	22	10-41	21	24	19-59	8	13	2-57	67	16	13-34
RIVER DISTRICT HOSPITAL SAINT CLAIR MI 48079	MI-162	647	15	9-17	40	23	10-37	20	35	14-53	16	50	5-45	45	31	12-37	24	17	17-54	25	24	9-44	68	28	13-35
RIVERSIDE OSTEOPATHIC HOSP TRENTON MI 48183	MI-163	1166	16	8-15	73	26	13-35	37	27	17-47	29	41	6-36	81	21	14-33	55	40	25-52	29	17	6-36	93	29	10-28
ROGERS CITY HOSP ROGERS CITY MI 49779	MI-164*	286	12	8-18	5	80	6-75	9	44	12-68	6	17	2-63	26	27	11-44	16	44	20-66	9	0	2-53	35	14	9-37
RUSSELL MEMORIAL HOSPITAL ONAWAY MI 49765	MI-165*	145	6	7-19	4	25	13-89	2	50	2-89	2	0	0-90	12	17	8-55	4	50	6-80	5	0	1-69	22	0	7-4
SAGINAW COMMUNITY HOSPITAL SAGINAW MI 48605	MI-166*	151	3	1-11	.	.		2	50	1-89	.	.		1	100	1-97	.	.		.	.		1	0	0-99
SAGINAW GENERAL HOSPITAL SAGINAW MI 48602	MI-167*	1677	12	9-15	150	15	17-35	48	21	18-44	27	19	5-35	106	17	15-31	53	49	27-54	18	11	4-41	121	22	12-28
SAGINAW OSTEOPATHIC HOSPIT SAGINAW MI 48602	MI-168*	169	11	5-16	13	8	8-53	2	50	1-89	3	0	0-83	4	75	2-75	3	67	5-86	2	0	0-96	17	18	3-39
SAINT JOHN HOSP DETROIT MI 48236	MI-169	3942	12	10-16	346	22	18-32	125	30	21-39	89	25	13-33	191	24	17-31	227	37	33-48	76	20	11-33	286	21	15-27
SALINE COMMUNITY HOSPITAL SALINE MI 48176	MI-170	451	11	8-17	22	9	6-41	13	23	9-55	15	13	3-43	30	20	11-41	21	29	23-64	19	0	4-40	46	20	11-35
SAMARITAN HEALTH CENTER DETROIT MI 48211	MI-171	1073	13	9-16	37	24	16-46	41	27	16-44	17	24	6-44	80	24	15-34	30	47	23-57	35	9	5-33	101	23	15-33
SARATOGA GENERAL HOSPITAL DETROIT MI 48205	MI-172	1517	15	10-16	104	23	16-36	84	25	19-39	28	29	7-37	120	28	16-32	69	42	28-52	46	22	8-34	114	18	10-26

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ONTONAGON MEMORIAL HOSPITA ONTONAGON MI 49953	1	0	0-99	2	50	5-93	5	0	0-75	.	.		20	5	1-30	1	0	0-100	1	0	0-100	20	5	1-29	13	8	0-42
ORCHARD HILLS HOSPITAL BELDING MI 48809	2	50	4-93	2	50	3-91	2	0	0-91	1	0	0-100	13	15	0-40	2	0	0-99	2	0	0-100	2	0	0-93	5	0	0-100
OTSEGO COUNTY MEM HOSP GAYLORD MI 49735	2	0	1-90	1	0	1-97	14	7	1-38	2	0	0-100	67	3	1-13	34	0	0-25	4	0	0-100	33	6	1-20	31	6	0-21
OUTER DR HOSP LINCOLN PARK MI 48146	7	29	5-68	13	31	14-63	11	0	2-45	3	0	0-100	71	6	2-14	31	0	0-24	.	.		164	4	2-9	28	4	0-27
PAUL OLIVER MEM HOSP FRANKFORT MI 49635	1	0	0-98	3	0	2-82	11	18	1-44	.	.		49	4	1-15	6	0	0-68	2	0	0-100	27	4	1-23	15	0	0-61
PAWATING HOSPITAL NILES MI 49120	15	33	9-56	9	44	13-71	37	14	3-25	3	0	0-100	111	5	2-11	52	0	1-17	9	0	0-100	86	5	2-12	70	3	0-10
PENNOCK HOSPITAL HASTINGS MI 49058	6	0	2-67	4	50	10-85	34	18	4-27	.	.		95	5	2-12	47	2	1-18	11	0	0-100	62	3	1-13	45	0	0-16
PIPP COMMUNITY HOSP PLAINWELL MI 49080	3	0	0-85	2	50	2-91	12	0	1-42	.	.		26	4	1-24	23	0	1-27	4	0	0-100	14	14	0-40	11	0	0-95
PONTIAC GENERAL HOSPITAL PONTIAC MI 48053	15	47	11-59	21	38	16-57	35	6	5-28	6	0	0-100	144	1	2-11	50	8	1-18	12	0	0-99	166	4	2-10	43	2	0-15
PONTIAC OSTEOPATHIC HOSPIT PONTIAC MI 48058	13	31	6-55	8	25	9-68	37	11	4-26	5	0	0-100	115	4	2-11	49	4	2-19	6	0	0-100	125	6	2-10	64	0	0-11
PORT HURON HOSPITAL PORT HURON MI 48060	13	23	5-53	6	67	14-81	58	3	3-20	7	0	0-100	166	4	3-11	57	7	1-17	21	0	0-91	162	5	2-10	206	0	0-5
PORTAGE VIEW HOSPITAL HANCOCK MI 49930	4	50	3-77	4	25	6-81	25	16	4-31	.	.		56	7	1-15	22	5	0-29	7	0	0-100	33	3	1-20	22	0	0-33
PROVIDENCE HOSP SOUTHFIELD MI 48037	27	26	10-48	46	33	23-53	98	8	5-18	22	0	0-43	360	4	3-8	151	5	2-12	39	0	0-45	429	3	2-7	164	1	0-6
REDFORD COMMUNITY HOSPITAL REDFORD MI 48240	5	60	9-80	.	.		25	8	3-29	1	0	0-100	29	3	1-23	17	18	1-34	1	0	0-100	27	4	1-23	22	5	0-36
REED CITY HOSPITAL REED CITY MI 49677	6	33	2-67	6	17	6-70	9	22	1-50	.	.		53	8	1-15	3	0	0-90	3	0	0-100	43	2	1-17	20	0	0-39
RIVER DISTRICT HOSPITAL SAINT CLAIR MI 48079	2	0	0-90	5	60	8-78	18	0	1-32	8	0	0-100	71	8	3-16	37	5	1-20	5	0	0-100	81	2	2-13	18	0	0-39
RIVERSIDE OSTEOPATHIC HOSP TRENTON MI 48183	11	36	5-57	10	50	14-69	31	19	2-25	6	0	0-100	124	6	2-12	59	5	0-16	19	5	0-31	93	10	1-11	98	2	0-8
ROGERS CITY HOSP ROGERS CITY MI 49779	3	33	1-82	3	33	6-87	.	.		.	.		43	0	1-16	7	0	0-59	3	0	0-100	29	3	1-21	6	0	0-76
RUSSELL MEMORIAL HOSPITAL ONAWAY MI 49765	1	0	1-97	.	.		.	.		.	.		13	0	1-39	3	0	0-86	.	.		37	0	1-18	.	.	
SAGINAW COMMUNITY HOSPITAL SAGINAW MI 48605	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		1	0	0-100
SAGINAW GENERAL HOSPITAL SAGINAW MI 48602	45	33	12-45	9	33	10-67	46	11	3-22	.	.		170	6	3-11	50	14	1-18	27	0	0-86	109	2	2-12	142	1	0-6
SAGINAW OSTEOPATHIC HOSPIT SAGINAW MI 48602	3	0	1-83	2	0	4-92	1	0	0-99	.	.		27	4	1-24	12	17	0-44	.	.		19	5	1-29	10	0	0-70
SAINT JOHN HOSP DETROIT MI 48236	22	14	8-49	10	40	16-72	97	11	5-19	17	0	0-65	313	5	3-9	206	7	2-11	48	2	0-17	772	3	3-6	165	1	1-6
SALINE COMMUNITY HOSPITAL SALINE MI 48176	3	67	6-87	8	13	12-72	16	6	2-36	2	0	0-100	44	5	1-17	33	0	1-22	10	0	0-100	41	2	1-18	10	0	0-60
SAMARITAN HEALTH CENTER DETROIT MI 48211	23	22	11-53	17	41	18-63	17	12	3-37	4	0	0-100	72	14	2-15	52	4	1-17	.	.		99	5	2-12	29	0	0-29
SARATOGA GENERAL HOSPITAL DETROIT MI 48205	16	25	7-53	17	47	17-62	29	21	3-28	2	0	0-100	160	9	3-11	77	5	1-14	15	0	0-95	155	8	3-11	65	0	0-12

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																										
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease									
Name, Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent						
SCHEURER HOSPITAL PIGEON MI 48755	MI-173*	261	10	9-19	22	41	15-54	6	50	10-76	7	0	3-60	12	17	7-53	6	17	17-84	9	11	2-54	40	5	9-35						
SCHOOLCRAFT MEM HOSP MANISTIQUE MI 49854	MI-174*	306	12	8-17	10	60	11-65	6	17	6-70	7	29	2-59	19	16	8-44	18	22	15-57	8	13	3-59	43	16	9-34						
SEAWAY HOSPITAL TRENTON MI 48183	MI-175	723	15	9-17	56	25	15-41	28	25	13-46	19	37	7-44	43	26	13-39	33	58	24-57	7	0	1-59	66	21	11-32						
SHERIDAN COMMUNITY HOSPITA SHERIDAN MI 48884	MI-176	172	5	7-19	6	0	8-73	5	0	4-71	3	0	0-83	7	0	3-60	4	25	5-79	2	0	0-89	37	5	8-34						
SINAI HOSPITAL DETROIT MI 48235	MI-177	3984	11	10-16	317	28	19-34	111	24	22-40	74	8	10-31	175	21	17-31	128	40	31-50	91	15	13-34	313	24	15-27						
SOUTH HAVEN COMM HOSP SOUTH HAVEN MI 49090	MI-178*	483	13	10-19	23	26	12-49	14	36	12-58	4	25	1-74	36	14	10-37	22	23	22-62	18	17	7-46	81	19	13-32						
SOUTH MACOMB HOSPITAL WARREN MI 48093	MI-179*	2695	14	12-18	261	26	18-34	217	16	22-35	44	25	10-35	180	33	19-33	114	42	31-50	72	28	12-35	226	19	15-29						
SOUTHWEST DETROIT HOSP DETROIT MI 48226	MI-180	670	11	8-16	35	23	12-42	27	19	12-45	10	20	2-50	51	8	12-35	20	45	21-62	37	11	8-37	73	25	11-31						
SPRINGWELLS HEALTH CENTER DEARBORN MI 48126	MI-181*	54	15	5-23	1	0	0-97	2	100	2-89	.	.		5	20	3-70	1	100	2-98	3	0	1-81	5	40	5-73						
ST FRANCIS HOSP ESCANABA MI 49829	MI-182*	921	13	10-17	60	35	16-41	38	13	15-44	25	28	6-37	60	28	13-34	47	32	26-54	24	17	5-37	67	15	14-35						
ST JOSEPH HOSP FLINT MI 48502	MI-183*	2813	13	10-16	248	30	21-37	95	28	20-39	68	19	9-30	190	24	17-30	91	41	27-49	79	16	11-33	243	16	13-26 2						
ST JOSEPH HOSPITAL EAST W MOUNT CLEMENS MI 48043	MI-184	2933	11	9-15	173	27	18-35	126	25	21-38	70	14	9-29	177	24	16-30	111	49	30-50	76	17	11-33	262	16	13-25						
ST JOSEPH MERCY HOSP PONTIAC MI 48053	MI-185	3237	11	9-15	242	25	17-33	137	31	20-36	89	13	8-27	201	22	16-29	115	26	30-49	73	19	7-28	229	18	14-27						
ST JOSEPH MERCY HOSPITAL ANN ARBOR MI 48106	MI-186	4550	11	9-15	484	26	18-32	137	20	19-35	125	13	12-29	211	20	16-28	184	30	30-46	69	22	11-33	274	19	14-27						
ST LAWRENCE HOSPITAL LANSING MI 48914	MI-187	1213	10	8-15	75	17	13-35	30	13	13-45	21	24	7-43	61	25	14-36	49	27	25-53	38	21	7-35	79	18	12-32						
ST LUKES HOSP SAGINAW MI 48602	MI-188	2108	11	8-15	160	26	16-34	73	34	19-40	56	7	7-30	116	20	14-30	76	29	28-51	45	13	7-32	172	24	12-26						
ST MARY HOSPITAL LIVONIA MI 48154	MI-189	2460	11	10-17	153	18	16-34	95	27	22-41	49	22	9-33	160	27	17-31	116	34	31-50	93	13	11-32	228	19	15-28						
ST MARYS HOSP GRAND RAPIDS MI 49503	MI-190	2993	13	10-16	319	24	17-31	155	22	21-37	60	23	10-32	154	24	15-30	107	38	30-50	50	18	8-33	246	20	14-27						
ST MARYS HOSPITAL SAGINAW MI 48601	MI-191	2211	11	8-14	144	26	19-37	45	42	16-42	38	21	8-36	114	25	15-32	70	40	26-50	29	28	8-40	140	14	13-28						
STANDISH COMMUNITY HOSPITA STANDISH MI 48658	MI-192	351	11	9-19	12	25	7-54	10	20	14-68	12	17	3-47	23	30	10-45	22	41	20-59	11	9	2-49	64	11	12-34						
STRAITH MEMORIAL HOSPITAL SOUTHFIELD MI 48075	MI-193*	168	0	0-33	1	[illegible]	0-97		.		.			.	.		.	.		.	.		.	.							
STURGIS HOSPITAL STURGIS MI 49091	MI-194*	451	15	8-17	30	30	9-39	18	39	12-53	10	20	3-51	24	42	9-42	15	60	17-64	9	22	2-54	60	22	12-34						
TAWAS ST JOSEPH HOSPITAL TAWAS CITY MI 48763	MI-195	791	13	8-16	60	18	13-37	15	20	11-55	19	21	5-40	60	32	12-33	27	37	20-55	21	33	7-43	97	19	11-29						
THORN HOSPITAL HUDSON MI 49247	MI-196*	97	19	6-20				3	33	2-81		.		4	50	2-75	2	0	1-89	5	20	2-69	21	38	9-44						
THREE RIVERS HOSPITAL THREE RIVERS MI 49093	MI-197*	500	15	10-19	27	33	12-46	18	50	13-54	14	29	6-49	35	17	10-38	25	48	24-62	17	0	5-43	76	24	12-31						
TOLFREE MEMORIAL HOSPITAL WEST BRANCH MI 48661	MI-198*	945	14	10-17	40	48	18-48	30	20	18-52	29	3	6-36	55	25	14-37	99	28	30-51	17	24	5-44	96	25	12-29						

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
SCHEURER HOSPITAL PIGEON MI 48755	3	100	9-90	1	0	2-98	.	.	.	.	.	.	30	10	1-22	32	0	0-24	3	0	0-99	30	0	1-21	5	20	0-95
SCHOOLCRAFT MEM HOSP MANISTIQUE MI 49854	1	0	1-97	.	.		10	20	3-50	.			42	2	2-19	3	67	0-93	.	.		35	0	1-19	14	0	0-52
SEAWAY HOSPITAL TRENTON MI 48183	3	0	1-82	8	38	7-65	18	6	2-34	.	.		78	10	1-12	37	5	1-20	7	0	0-100	109	6	2-10	22	5	0-31
SHERIDAN COMMUNITY HOSPITA SHERIDAN M. 48884	4	0	5-80	2	0	1-89	1	0	0-100	.	.		20	5	1-29	5	0	0-78	2	0	0-100	13	8	1-39	10	0	0-83
SINAI HOSPITAL DETROIT MI 48235	23	30	12-54	108	35	29-52	66	12	6-24	95	0	0-8	302	5	3-10	172	5	2-12	32	0	0-33	542	5	3-7	162	1	1-6
SOUTH HAVEN COMM HOSP SOUTH HAVEN MI 49090	7	57	10-74	9	33	12-70	15	0	1-36	6	0	0-100	53	6	1-15	15	20	1-36	1	0	0-100	58	3	1-14	15	0	0-41
SOUTH MACOMB HOSPITAL WARREN MI 48093	25	12	11-51	33	33	23-58	76	8	6-22	6	0	0-100	265	5	3-10	116	1	1-12	32	3	0-48	295	6	2-8	115	3	1-8
SOUTHWEST DETROIT HOSP DETROIT MI 48226	10	10	6-60	4	75	6-81	13	8	2-41	4	0	0-100	60	8	1-14	35	9	1-21	1	0	0-100	81	1	1-12	35	3	0-21
SPRINGWELLS HEALTH CENTER DEARBORN MI 48126	.	.		.	.		.	.		.	.		4	0	0-93	2	50	0-97	1	0	0-100	9	0	0-59	3	0	0-100
ST FRANCIS HOSP ESCANABA MI 49829	11	27	9-62	20	30	14-56	27	19	4-31				106	6	3-13	40	8	1-19	9	0	0-100	94	3	2-11	55	0	0-13
ST JOSEPH HOSP FLINT MI 48502	21	29	11-53	28	43	23-61	66	12	4-20	2	0	0-100	274	5	3-9	135	4	2-12	18	0	0-80	262	7	2-8	135	1	1-7
ST JOSEPH HOSPITAL EAST W MOUNT CLEMENS MI 48043	17	29	11-56	40	45	21-53	61	7	3-19	16	0	0-88	254	3	3-9	134	1	1-11	19	0	0-66	286	3	2-8	163	1	0-6
ST JOSEPH MERCY HOSP PONTIAC MI 48053	18	11	9-54	34	50	22-56	83	13	4-17	61	2	0-22	279	5	2-8	111	5	1-12	26	4	0-78	371	4	2-7	196	1	0-5
ST JOSEPH MERCY HOSPITAL ANN ARBOR MI 48106	34	21	11-48	21	52	22-64	116	5	4-16	35	3	0-52	366	8	3-9	207	6	1-10	50	0	0-37	497	5	3-7	322	1	0-4
ST LAWRENCE HOSPITAL LANSING MI 48914	3	33	1-82	21	33	17-58	33	15	3-25	4	0	0-100	110	5	2-12	59	7	1-16	9	0	0-100	95	5	1-11	57	0	0-12
ST LUKES HOSP SAGINAW MI 48602	17	29	7-51	19	26	15-58	66	6	5-21	14	0	0-98	256	5	3-10	96	3	1-13	3	0	0-100	205	8	3-9	160	0	0-5
ST MARY HOSPITAL LIVONIA MI 48154	30	30	13-51	30	30	23-59	68	10	5-21	4	0	0-100	276	4	3-9	162	3	2-12	11	0	0-92	230	2	2-8	111	0	1-8
ST MARYS HOSP GRAND RAPIDS MI 49503	83	18	8-36	36	39	23-56	145	7	4-15	39	0	0-52	315	10	3-9	143	2	1-11	33	3	0-37	193	4	3-9	236	0	0-5
ST MARYS HOSPITAL SAGINAW MI 48601	13	23	3-51	7	14	11-74	36	14	3-24	42	0	0-45	138	10	3-12	55	5	1-16	2	0	0-100	535	4	3-8	123	1	0-7
STANDISH COMMUNITY HOSPITA STANDISH MI 48658	1	0	1-97	2	0	4-92	5	20	0-78	.	.		30	0	1-22	7	0	0-65	2	0	0-100	61	0	2-15	2	0	0-100
STRAITH MEMORIAL HOSPITAL SOUTHFIELD MI 48075	.	.		.	.		.	.		109	0	0-12	.	.		.	.		.	.			.		28	0	0-63
STURGIS HOSPITAL STURGIS MI 49091	4	25	4-79	6	33	9-75	22	5	2-31	1	0	0-100	67	7	2-15	23	0	0-28	10	0	0-99	35	6	1-13	15	0	0-58
TAWAS ST JOSEPH HOSPITAL TAWAS CITY MI 48763	6	50	7-73	4	25	4-78	30	0	2-25	2	0	0-100	94	4	2-12	69	4	1-14	7	0	0-100	81	2	1-11	22	5	0-36
THORN HOSPITAL HUDSON MI 49247	1	100	1-97				1	0	0-100	.	.		8	0	0-60	3	33	0-82	.	.		12	0	0-44			
THREE RIVERS HOSPITAL THREE RIVERS MI 49093	3	0	8-90	8	25	12-72	15	7	3-40	.	.		82	2	2-13	14	0	0-45	9	0	0-100	43	5	1-17	22	0	0-27
TOLFREE MEMORIAL HOSPITAL WEST BRANCH MI 48661	6	33	2-67	6	33	5-69	3	33	0-85	1	0	0-100	120	7	2-10	45	4	1-18	5	0	0-99	153	3	2-9	12	0	0-86

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
TRAVERSE CITY OSTEOPATHIC TRAVERSE CITY MI 49684	MI-199	632	13	10-18	55	24	16-42	18	33	15-56	8	25	5-61	37	19	13-41	29	38	23-58	17	18	7-47	55	16	13-36
TRI COUNTY COMM HOSP EDMORE MI 48829	MI-200*	50	10	6-26	3	0	0-83	4	25	6-81	.	.		4	0	2-75	1	0	1-97	4	25	3-76	6	17	2-63
UNITED MEMORIAL HOSPITAL GREENVILLE MI 48838	MI-201*	262	12	8-18	9	33	7-61	14	36	11-56	10	10	5-54	12	33	8-55	4	50	7-82	9	22	2-53	40	15	9-35
UNIVERSITY HOSPITAL ANN ARBOR MI 48104	MI-202	3504	9	8-14	432	19	22-36	51	24	17-43	56	20	9-31	103	23	15-32	119	20	27-46	36	6	4-31	146	23	13-28
VISITORS HOSPITAL BUCHANAN MI 49107	MI-203*	27	7	2-28	1	100	3-99	.	.		.	.		3	0	2-82	.	.		2	0	0-94	6	17	0-63
W A FOOTE MEMORIAL HOSP JACKSON MI 49201	MI-204*	2916	12	9-16	213	26	17-33	127	28	21-38	54	19	10-34	173	23	16-30	93	41	30-51	68	18	10-33	247	18	13-25
WEST SHORE HOSPITAL MANISTEE MI 49660	MI-205	581	14	9-17	34	26	13-44	22	27	16-54	14	29	7-50	37	19	11-38	23	48	23-62	9	22	5-58	42	19	9-34
WESTLAND MEDICAL CENTER WESTLAND MI 48185	MI-206	411	17	7-16	10	40	7-59	12	50	10-58	8	38	3-58	24	33	8-40	16	69	19-64	13	23	3-46	51	10	10-33
WHEELOCK MEM HOSP GOODRICH MI 48438	MI-207*	180	8	7-18	5	40	2-68	5	0	5-74	2	0	0-92	13	38	8-54	10	30	15-69	6	17	5-69	14	14	8-51
WILLIAM BEAUMONT HOSPITAL ROYAL OAK MI 48072	MI-208	6771	12	9-15	625	24	20-33	177	28	22-37	148	18	12-28	256	30	18-30	290	34	32-46	163	15	12-30	443	22	16-27
WILLIAM BEAUMONT HOSPITAL TROY MI 48098	MI-209*	1702	12	9-16	127	23	14-33	48	27	18-44	50	26	10-35	84	29	14-33	66	26	28-52	50	14	10-36	149	23	13-28
WYANDOTTE GENERAL HOSPITAL WYANDOTTE MI 48192	MI-210	1970	11	10-16	149	30	17-35	80	28	19-40	39	15	9-36	124	26	17-33	66	45	25-49	50	10	10-36	186	14	13-27
YALE COMMUNITY HOSPITAL IN YALE MI 48097	MI-211*	134	17	9-22	5	80	5-73	7	57	8-68	3	0	0-83	11	45	7-55	3	33	4-84	4	25	3-76	38	8	5-29
ZEELAND COMMUNITY HOSPITAL ZEELAND MI 49464	MI-212	436	9	9-17	33	15	10-40	26	27	16-51	5	0	1-68	30	27	11-41	14	21	20-68	14	7	4-46	40	13	11-37
3ETROIT OSTEO HOSP HIGHLAND PARK MI 48203	MI-213	885	12	8-15	92	23	20-42	25	20	14-49	14	14	7-51	58	10	10-30	15	27	16-62	15	13	6-49	48	19	9-32

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
TRAVERSE CITY OSTEOPATHIC TRAVERSE CITY MI 49684	9	11	6-62	7	71	14-78	20	5	3-34	2	0	0-100	58	9	2-17	32	6	1-23	6	0	0-100	38	5	1-18	80	0	0-9
TRI COUNTY COMM HOSP EDMORE MI 48829				1	100	1-97	.			1	0	0-100	3	0	0-87		.		.	.		3	0	0-96	.	.	
UNITED MEMORIAL HOSPITAL GREENVILLE MI 48838	6	33	1-66	3	0	4-84	9	11	1-50	.			42	5	1-17	3	0	0-87	7	0	0-100	16	6	0-34	11	0	0-74
UNIVERSITY HOSPITAL ANN ARBOR MI 48104	76	13	4-33	19	58	22-66	34	24	4-27	280	0	0-3	185	5	3-12	96	3	1-13	36	0	0-25	314	8	3-9	186	2	0-5
VISITORS HOSPITAL BUCHANAN MI 49107	.	.		.	.			.		.	.		1	0	0-100	.	.		.	.		.	.		.	.	
W A FOOTE MEMORIAL HOSP JACKSON MI 49201	9	33	3-58	45	42	25-56	100	6	4-18	26	0	0-75	266	5	3-9	115	4	2-13	23	0	0-84	228	4	3-9	289	1	0-4
WEST SHORE HOSPITAL MANISTEE MI 49660	3	33	6-88	7	43	11-74	16	13	1-35	.	.		69	7	2-14	32	6	0-22	8	0	0-100	53	2	1-14	26	4	0-24
WESTLAND MEDICAL CENTER WESTLAND MI 48185	6	67	4-70	4	0	8-83	18	22	2-33	.	.		29	10	0-22	17	18	0-34	3	0	0-100	55	4	1-13	16	0	0-65
WHEELOCK MEM HOSP GOODRICH MI 48438	1	0	0-100	.	.		2	0	0-94	.	.		23	0	0-27	4	0	0-77	1	0	0-100	38	0	1-18	4	0	0-99
WILLIAM BEAUMONT HOSPITAL ROYAL OAK MI 48072	69	20	11-40	53	40	23-52	204	9	5-15	322	0	0-2	577	6	3-8	349	5	2-10	71	0	0-20	712	5	3-7	403	1	1-4
WILLIAM BEAUMONT HOSPITAL TROY MI 48098	18	17	6-49	24	17	20-60	47	17	4-24	3	0	0-100	172	4	2-9	113	5	1-12	11	0	0-96	168	6	2-9	91	1	0-8
WYANDOTTE GENERAL HOSPITAL WYANDOTTE MI 48192	12	33	11-63	28	14	22-59	39	13	2-22	7	0	0-100	185	5	3-11	100	5	2-14	13	0	0-96	195	3	2-9	86	1	0-9
YALE COMMUNITY HOSPITAL IN YALE MI 48097	5	60	8-79	3	33	5-86	.	.		.	.		10	0	0-52	3	33	0-85	.			7	0	0-61	1	0	0-100
ZEELAND COMMUNITY HOSPITAL ZEELAND MI 49464	2	0	0-93	7	14	8-70	21	10	1-30	.			56	4	1-14	33	3	0-22	2	0	0-100	44	2	1-16	19	5	0-40
3ETROIT OSTEO HOSP HIGHLAND PARK MI 48203	19	32	7-50	4	25	11-87	7	14	1-58	5	0	0-100	58	9	2-16	37	11	1-20	5	0	0-100	143	9	2-9	38	3	0-17

*Written Comments Not Submitted

ALBION · COMMUNITY · HOSPITAL
809 WEST ERIE STREET · ALBION, MICHIGAN 49224 · 517/629-2191

October 26, 1987

William M. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

The Quality Assurance Committee has examined our hospital's mortality data, which will be released to the public in December 1987. Our review of this information indicated that only two diagnostic categories were at the upper limits of the normal parameters. The committee reviewed the charts for these two diagnostic categories, cancer and cardiovascular accidents. The analysis of these two diagnoses was as follows:

Eight (8) CVA charts were cited for review, 7 of which were available. Five (5) of the seven (7) patients reviewed were DNR patients with multiple medical problems. One (1) of the five (5) was out-of-hospital cardiac arrest with presumed severe anoxic encephalopathy as well as possible CVA. Another of the DNR patients died of concomitant mesenteric thrombosis. Of the two (2) remaining patients, one was stable at the time of discharge and died at nursing home lw days after discharge. The one (1) remaining patient appeared to be recovering when he suffered a cardiac arrest. He underwent full CPR which was unsuccessful

The mortality rates for carcinoma at this hospital is 42%. This falls within the guidelines of 9 to 48% established by HCFA. It should be noted, however, that only eight (8) patients were included in this analysis, 4 of whom were terminally ill and died humanely at home or under hospice care.

In summary, it is our conclusion that deviations from the mortality ranges for these two diagnostic categories was medically justified. In the aggregate, our hospital's death rate was one percentage point more than the bottom of the range for Medicare patients. We believe this is one indication of good quality care being provided to patients in the Albion area.

Sincerely yours,

M. Carmen Meerschaert, M.D.
Chairman, Quality Assurance Committee

Richard C. Hoeth,
President

jlc

HCFA/EXEC.SEC.
1987 OCT 28 PM 1:52

MEMORANDUM

To: The Administrator, Health Care Financing Administration
From: Mary J. Delong, ART, Director, Medical Records
Alpena General Hospital
Date: October 27, 1987
Subject: Ophthalmologic Disease

We would like the following attached to your mortality release in December.

Alpena General Hospital
1501 W. Chisholm Street
Alpena, MI 49707

The specific case appears to be categorized under the "Eye", when this patient could possibly have been grouped under the CA (cancer) listing. In brief, the patient was admitted with eye pain and was seen in consultation by an ENT specialist and an ophthalmologist, who both concurred that this condition was a result of a possible carcinomatous metastasis which extended to the orbit of the eye. Subsequently, when the record was coded, the principal diagnosis was identified as left orbital cellulitis, which grouped the diagnosis to DRG 44 - Acute Major Eye Infections. Although the eye pain was the reason for admission, it was not the cause of the patient's demise, which was the generalized metastasis.

PCHA ANNAPOLIS HOSPITAL UNIT OF PEOPLES COMMUNITY HOSPITAL AUTHORITY

WADE C. ADAMS, *ADMINISTRATOR* • 33155 ANNAPOLIS, P. O. BOX 806, WAYNE, MI 48184 • (313) 467-4000

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YPSILANTI

TOWNSHIPS OF

HURON

SUMPTER

SUPERIOR

VAN BUREN

YPSILANTI

October 28, 1987

Mr. Harvey Brooks
HCFA
6300 Security Blvd.
Room 2D2
Meadows East Building
Baltimore, Maryland 21207

Dear Mr. Brooks:

On behalf of Annapolis Hospital (Medicare Provider #23-0142), I would like to make the following comments regarding the 1986 HCFA mortality information.

°Annapolis Hospital had a 13% actual mortality rate for all causes in the diagnostic categories studied.

Total Medicare Cases per HCFA:	1,861
Total Deaths:	237

°Generally, it is expected that older patients will have a higher probability of death. For Annapolis Hospital, in 110 of the 237 deaths (or 46%), the patients were 80 years or older.

°The highest mortality rate at Annapolis Hospital was in the HS category (severe acute heart disease). The types of cases, number of deaths, and number of deaths within 48 hours is as follows:

HS CATEGORY: SEVERE ACUTE HEART DISEASE		HS MORTALITY RATES
*Highest Death Rate		
Total HS cases:	79	
Total HS deaths:	38	48%
Total HS deaths within 48 hours	15	19%

It is important to note that this category includes such conditions as follows:

HS: SEVERE ACUTE HEART DISEASE	ANNAPOLIS HOSPITAL
This category includes such conditions as:	BREAKDOWN
- Acute myocardial infarction	26
- Paroxysmal ventricular tachycardia	0
- Ventricular fibrillation	2
- Cardiac arrest	8

HS SEVERE ACUTE HEART DISEASE	BREAKDOWN (continued)
- Dissecting or ruptured aortic aneurysms	1
- Cardiogenic shock	1

° The mortality data includes cases of deaths that occurred while the patient was in the hospital and after the patient was discharged. The following is a breakdown of information regarding patients that expired within 48 hours of admission and after discharge.

		% OF TOTAL DEATHS
# of patients that expired after discharge	45	19%
# of patients that expired within 48 hours of admission	52	22%

°There are four errors in the dates of discharge/death. The corrections that you need to make to your data according to information obtained directly from the patients' medical records are as follows:

PT ID #(HIC)	SURNAME	AGE	SEX	DATES OF ADMISSION	DISCHARGE	DEATH
[redacted]	[redacted]	80	F	7/27/86	7/28/86	7/28/86
[redacted]	[redacted]	81	M	7/27/86	7/28/86	7/28/86
[redacted]	[redacted]	88	F	5/6/86	5/16/86	5/16/86
[redacted]	[redacted]	74	M	5/4/86	5/16/86	5/16/86

I hope this information is helpful to you presenting your data to the public. If you have any questions about the data contained within this letter, please feel free to contact me.

Very truly yours,

Wade C. Adams

Wade C. Adams
Administrator

WCA/cc

cc: F. E. Blair
M. Camps
B. Heenan
V. Goburdhun, M.D.

BAY MEDICAL CENTER
1900 Columbus Avenue
Bay City, Michigan 48708

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Washington, D.C. 20201

Re: Medicare I.D. #230041

Dear Doctor Roper:

Representatives of the Medical Staff and employee complement involved in Medical Records and Quality Assurance have reviewed the information about Medicare experience and submit the following comments:

DATA VERIFICATION:

Our records indicate that almost twice as many Medicare admissions occurred during 1986 at Bay Medical Center than the figures released by HCFA. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries to Bay Medical Center.

It is impossible to determine the cause of death in most of the patients dying after discharge from Bay Medical Center.

Using other records available to Bay Medical Center, the Medical Records Department was able to confirm the date of death for most of the patients dying after discharge, as included in the HCFA report.

Three patient deaths listed by HCFA in the Cancer category could not be confirmed as to date, location, or cause.

Seven cases identified in the HCFA report have either incorrect date of death, incorrect admission data, incorrect procedure data, or were never treated at Bay Medical Center (see Attachment A).

REVIEW METHODS:

Bay Medical Center's actual mortality rate, as reported by HCFA, fell within or below the range of predicted mortality rate. Therefore, Bay Medical Center concentrated its review in the 8 categories with a mortality rate greater than 15%. These 8 categories accounted for 67% of the Medicare admissions and 75% of the Medicare deaths. All medical records of these patients were reviewed to determine if death was the expected

outcome at admission or during the course of the patient's stay. Patient's requests were followed with respect to no extraordinary efforts for prolonging life, constituting 2/3 of the patients listed in the HCFA Report. In some instances, the patient had sustained massive trauma or the patient was under extensive treatment for a progressive chronic condition. Death due to expected outcome at admission or during the course of patient's stay accounted for 66% of the cases reviewed. Another factor identified during the review was the unusually large number of complicating conditions not considered in the HCFA model of patients in the severe chronic and acute heart disease categories.

Other limitations of the data released by HCFA is both the relatively small number of patients in some categories; such as, renal diseases and sepsis, and the potential misleading characteristics of the data (i.e., cases coded to heart disease as the reason for final admission and death, but not truly the patient's underlying cause of illness such as carcinoma or chronic lung disease).

The HCFA data assumes that the hospital's patients are "average" except with respect to a limited number of characteristics. However, the model does not include measures of severity, whether the patient was transferred to the hospital from a nursing home, was receiving treatment at home prior to admission, had a terminal illness, or the psychological state or general health status of the patient.

The specific information released by HCFA is of limited value to Bay Medical Center in identifying areas for review, and although it may be interesting to the general public, in no way should it be considered a quality indicator for the following reasons:

1. We feel the categories are too broad, and the range may not be appropriate.

2. There is no comparison between Medicare and non-Medicare patients.

3. No figures were released of how many patients were treated that didn't die.

4. There is no indication of the process of care.

5. There is no direct correlation between quality of care and mortality.

6. There is no identification of underlying cause of illness.

7. There is no measure of severity of illness.

CHARACTERISTICS OF HOSPITAL:

Bay Medical Center is a 407 bed, non-profit, acute care, general community hospital. It provides inpatient care to over 14,500 patients annually with an average length of stay of 6.1

days. Over 1,100 births, 30,000 emergency room visits, 6,500 outpatient clinic visits and 8,000 surgeries (4,000 inpatient, 4,000 ambulatory) occur each year. It serves an area with a Medicare population significantly older than the average for Michigan, with the hospital's largest share of the Medicare patients being between the ages of 70-79 years of age. In 1985, Bay Medical Center received accreditation from the American College of Surgeons for its Cancer Program and receives a significant number of referrals from both its primary and secondary service area for this program.

Bay Medical Center has a long standing commitment to ensuring the highest quality of care for our patients. As such, it has voluntarily maintained accreditation through the Joint Commission on Accreditation of Healthcare Organizations. This commitment is carried out through the operation of a comprehensive Quality Assurance Program. This program is under the overall direction of the hospital Board of Directors and is implemented and carried out by its Medical and Dental Staff and Administration.

The program is designed to objectively and systematically monitor and evaluate the quality and appropriateness of patient care, pursue opportunities to improve patient care, and to resolve identified problems. This program incorporates not only mortality review but a vast array of other peer review activities undertaken by both the Medical and Professional staffs of the hospital. Mortality review is only one element of a comprehensive occurrence screening program conducted at Bay Medical Center which monitors adverse patient events that are not a natural consequence of the patient's disease, condition, or procedure. Such events are reviewed to identify any adverse trends, identify opportunities to correct problems and their causes and to encourage and focus productive communication among the professional and medical staff for the ongoing assessment and maintenance of high quality patient care.

The Quality Assurance Program is decentralized to all levels of the organization with the principal responsibility for review, conclusions, actions, and evaluation/followup being the responsibility of the respective hospital and Medical Staff departments. Their activities are reported to and monitored by the Medical Staff Quality Assessment Committee, Medical Executive Committee, Administration and the Board of Directors. This decentralized format is designed to facilitate and ensure the highest levels of quality patient care at all levels within the hospital.

The program not only facilitates and requires ongoing reporting of activities but also provides for the annual reappraisal of the program to ensure that it achieves its objectives, is demonstrating impact, is cost efficient and consistent with accrediting and regulatory agencies.

Finally, it should be noted that the HCFA mortality rates only apply to Medicare patients and differ from other indicators of inpatient mortality because they are calculated using only deaths that occurred within 30 days of the last admission of a

Medicare patient to the hospital during 1986. The American Hospital Association, Joint Commission of Accreditation of Healthcare Organizations, and other organizations are investigating methods of evaluating hospital quality that rely on measures other than mortality rates, and Bay Medical Center looks forward to the results of these efforts. Bay Medical Center is committed to the delivery of the highest quality of patient care and will continue to utilize all of the latest techniques that are developed for this effort. We have been and shall continue to be committed to any activities that can assure our public of the highest quality of care and will insist upon their development.

Yours very truly,

ANTHONY W. ARMSTRONG
President/Chief Operating Officer

cm

BAY MEDICAL CENTER
1900 Columbus Avenue
Bay City, Michigan 48708

COMMENTS ON HCFA MORTALITY DATA
ATTACHMENT A - DATA ERRORS

HIC NUMBER	Admit date	Discharge date	Date of Death
[redacted]	Adm.-12/9/86	Dis.-12/19/86	Died-1/4/87

Patient was readmitted 12/24/86, and expired as a BMC Inpatient 1/4/87. Incorrectly listed first admission rather than last admission; should be in GC category rather than HS.

[redacted] Adm.-12/18/86 Dis.-12/29/86 Died-1/17/87

Patient was readmitted 1/5/87 and expired as a BMC Inpatient 1/17/87. Incorrectly listed under first admission rather than last admission.

[redacted] Adm.-11/19/86 Dis.-12/5/86 Died-12/14/86

This patient was a drowning victim and his body was retrieved from the Saginaw River on 3/7/87. The 12/14/86 date of death cannot be validated.

[redacted] Adm.-10/21/86 Dis.-11/6/86

There is no record of this patient being treated at Bay Medical Center.

[redacted] Adm.-3/7/86 Dis.-3/7/86 Died-3/8/86

Patient expired at BMC; discharge date should be same as date of death, 3/8/86.

[redacted] Adm.-12/8/86 Dis.-12/9/86 Died-12/10/86

Correct date of death should be 12/9/86.

[redacted] Adm.-7/14/86 Dis.-8/2/86 Died-8/8/86

Principal procedure should be 38.21, 38.12.

BOH
John J. Mills, President
517-686-2920

Medicare ID #230-256

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Finance Administration
Dept. of Health & Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Concerning the mortality information for Medicare patients whose last admission in 1986 was to Bay Osteopathic Hospital and of that group those who died within 30 days of admission, we have reviewed our records and found some minor errors, including two admissions which were not included in your report. Of the 78 of these patients who died within 30 days of admission, we found that 25 died before discharge rather than the 24 mentioned by HCFA.

Unfortunately we have no means of verifying that the patients who were alive at discharge did in fact die after discharge and within 30 days of admission. Nor can we verify that the deaths are correctly distributed over the 15 diagnostic categories presented by HCFA, thus preventing us from verifying actual mortality rates as calculated by HCFA using HCFA criteria.

Assuming however that the number of deaths are correct, as well as correctly distributed over the 15 diagnostic categories and therefore that the mortality rates are correctly calculated, we have the following observations and comments.

We found that 40 patients with multiple medical problems representing 51% of the total deaths, were from nursing homes. Bay Osteopathic Hospital is attached to Tri-City Nursing Home and within a fifteen mile radius of an additional four nursing homes. In addition, Bay Osteopathic Hospital's staff physicians are responsible for direct care for a large share of the residents of nursing homes. One of our physicians is Medical Director at four of these facilities and does the majority of his admitting for acute care at Bay Osteopathic Hospital.

We also found that 36% of the patients who died were admitted through the Emergency Dept. and of these patients 18% expired within a 24 hour time period. In further analyzing the HCFA data concerning Bay Osteopathic Hospital, we found two other significant factors: (1) Two-thirds of the patients who died were terminally ill and the family had requested "Do not resuscitate" orders during their admission; and (2) the average age of the patients who died was 78.5 years.

These factors reflect the significant number of our Medicare patients who are among the frail elderly, are acutely ill, and in many cases are near death when they are admitted to the hospital. In conclusion, we wish to point out and emphasize that the HCFA data in itself is not a measure of hospital performance. At best, this information can be used to better focus quality assurance activities.

Sincerely,

John J. Mills
President

JJM/bap

Berrien General Hospital
6418 Deans Hill Road
Berrien Center, MI 49102
(616) 471-7761

Berrien General Hospital

Response/HCFA 1986 Medicare Mortality Data

HCFA 1986 Mortality Data confirm an important correlation: that Berrien General Hospital serves, among others, a specialized Medicare population for whom death is the medically expected outcome, because of the patients' advanced state of disease at the time of admission.

Berrien General Hospital is a 61-bed acute care community hospital offering tradional hospital services (medical/surgical, intensive care, obstetrics, and pediatrics) as well as several unique services. One of those unique services is the Mattix Center for Long Term Care, a 187-bed skilled nursing facility attached to the hospital. The Mattix Center is the only hospital-based skilled nursing facility in the region.

In 1986, 30% of the Medicare patients admitted to Berrien General's medical /surgical and intensive care units were admitted directly from area nursing homes. This is because Berrien General's medical staff provides medical care to 40% of Berrien County's nursing home patients. Because of their severe underlying health problems, these chronically ill, seriously debilitated patients had a higher predicted mortality rate. In fact, 56% of the hospital's 1986 HCFA Medicare mortalities were patients admitted to the hospital from nursing homes.

In Berrien General Hospital's analysis of its 1986 Medicare patient mortalities, 96% of the patients who died had significant co-existing medical conditions. A confirmation of the complexity and severity of these patients' illnesses is reflected in the hospital's Case Mix Index. The Case Mix Index is a measure of the hospital resources consumed by a particular patient.

According to a 1987 report by the Southwestern Michigan Health Coordinating Council, Berrien General Hospital's Case Mix Index is the second highest in its eight-county region, surpassed only by Kalamazoo's Borgess Medical Center, a 473-bed tertiary care hospital.

With only 9% (61) of Berrien County's total of 641 medical/surgical beds, Berrien General provides acute hospital services to 40% of the nursing home patients in Berrien County.

Another critical element in evaluating the 1986 HCFA Medicare Mortality Data is the "do not resuscitate" issue. According to authors Jencks and Dobson in the September 10, 1987, issue of the New England Journal of Medicine, studies of predicted mortality rates should exclude patients admitted with "do not resuscitate" orders. The method used by HCFA to predict 1986 Medicare mortalities did not exclude such patients. A total of 63% of Berrien General's 1986 HCFA Medicare mortalities were cases in which patients and families requested that no extraordinary measures be taken to continue life.

Berrien General Hospital agrees with Dr. William L. Roper, administrator of the Health Care Financing Administration, that the 1986 Medicare Mortality Data is useful, but, by itself, does not deal with complex issues such as severity of illness {Department of Health and Human Services Bulletin, HCFA, September 21, 1987}.

A validated methodology has been developed that establishes hospital patient mortality rates and includes the pivotal factor of severity of illness. Under a grant from the Health Care Financing Administration, the Commission on Professional and Hospital Activities has developed RAMI, the Risk Adjusted Mortality Index. RAMI incorporates condition-specific risk factors, such as whether a patient has cancer or has had a major surgical procedure, to predict patient mortality rates.

In analysis of Berrien General Hospital's 1986 data using the RAMI methodology, the hospital's "all causes" mortality rate for Medicare patients was precisely that predicted for a hospital treating the type of Medicare patients which Berrien General treats.

10/26/87 dd

BEYER MEMORIAL HOSPITAL
YPSILANTI, MICHIGAN

COMMENTS REGARDING THE HCFA
MORTALITY INFORMATION OF 1986

As requested, I will try to keep our comments brief, however, the gravity of the implications mandates that comments be made. Comments will be made first, about the methodology, secondly about the hospital's patient population, and lastly about data errors.

COMMENTS ON THE METHODOLOGY

The model used by HCFA has limitations. As taken from the letter from William L. Roper, M.D., Administrator of HCFA, "we can not and do not recommend the use of the information by itself to make judgements about the quality of care in an individual hospital or to make comparisions among hospitals." Mortality in and of itself is not a good indicator of quality. The most that can be said about the model is that it measures the relationship between a limited number of patient characteristics and the risk of death. Whether these are the most significant factors influencing the risk of death is unknown, but the limited ability of these factors to explain differences in mortality rates between hospitals suggests they are not.

The ability of the model to detect differences in quality has not been evaluated. The data assumes that each hospital's patients are "average" except for the few characteristics included in the model. It does not include measures of severity, whether the patient was transferred to the hospital from a nursing home, whether the patient was receiving treatment at home prior to admission, whether the patient had a terminal illness, or the patient's psychological state or general health status. This severely hampers its use and at best can perhaps identify areas for peer review in the hospital's already established quality assurance program.

Further, the HCFA data are not all-inclusive. The mortality rates apply only to Medicare patients, and differ from other indicators of inpatient mortality because they are calculated using only deaths that occurred within thirty (30) days of the last admission of a Medicare beneficiary to a hospital during 1986.

Finally, for hospitals that are small, the statistical significance of the model can be challenged when the number of deaths in any one of the 16 categories is 26 or less, as in our case, it is easy to see that a single death more or less, can change where the hospital lies in the predicted ranges.

COMMENTS ON FINDINGS

In an effort to complement our already rigorous quality assurance program, Beyer Memorial Hospital has done an analysis of 108 of the 141 deaths reported by HCFA. It is our intent to complete a review of all the deaths prior to the public release of the information, but time and resources were limited. As we do more analysis of this data, as with all our quality assurance activities, if we find any

areas of concern, they will be forwarded to the appropriate committees for further study and recommendation of appropriate action.

As indicated in our previous comments, the model does not do a number of things that could explain the variations from the average. I would like to share with HCFA what our preliminary findings show regarding those patients who died within 30 days of their last admission to Beyer.

1) Severity of illness is not considered.

On a 4 point scale measuring the admitting acuity of the patient as follows:

1 Good (does not appear unstable)
2 Fair (some degree of system decomposition)
3 Poor (multi system decomposition)
4 Grave (medically unstable, at risk for death)

Admitting Acuity	Number of Patients	Percent	
#1	0	0%	
#2	5	4.7%	
#3	32	29.6%	95.3%
#4	71	65.7%	

It is apparent that 95.3% of those deaths analyzed show the patients come to the hospital in a very deteriorated condition.

This is further validated when measured by the presence of two or more comorbid conditions. Unlike HCFA, which screened for only one, the hospital screened for two or more comorbid conditions. Our analysis indicates that 98% of deaths analyzed had two or more comorbid conditions, again indicating the severity of illness of our patients.

2) The psychological condition of the patient is not considered.

Although there is not necessarily an absolute correlation between psychological condition and no code orders, it is an indication of the patient's status.

Of the 108 reviews to date, 81 or 75% came to us with no code orders and 83 or 76.8% were expected to die.

3) The family environment is not considered.

Family environment, though difficult to measure, strongly influences the patient. In our review of 108 patients, we found that 61 or 56.5% were admitted from nursing homes. Further, our hospital serves mainly the Medicaid nursing homes in our county. This means that family assets have been used or that there is no family at all to support the patients, indicating a definite lack of support from the family.

4) The type of patient and patient mix is not considered.

As noted in three, 56.5% of the deaths analyzed were admitted from area nursing homes. In addition, 39 or 36.1% of the patients came in through our emergency room. This may indicate a lack of relationship with a primary care provider, the severity of the patient at the time of admission, or other factors that will show up in our continued analysis. Taken together, 92.6% of the patients analyzed came either from a nursing home or through the emergency room. In addition, our patient mix suggests more elderly patients than average. Our analysis shows the average age of the 108 patient charts reviewed as 80.5 years.

It is obvious to us that Beyer Memorial Hospital's patients are not the "average" patient identified in the HCFA model thus explaining the variations from the predicted ranges. This, along with the fact that 20.4% of the deaths occurred elsewhere, and with the small sample size found in our institution, suggests that further refinement is necessary before any conclusions can be reached from the HCFA model.

COMMENTS ON DATA ERROR

Minor discrepancies only, were found in the HCFA data. These included erroneous dates of death, but since they were within the 30 day period, there was no impact to or changes of our overall statistics. Also, only one coding error was found, and it likewise makes no changes in the overall statistics.

Bi-County Community Hospital (Osteopathic)
AN AFFILIATE OF HORIZON HEALTH SYSTEMS

October 23, 1987

Medicare Identification #230204

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

A RESPONSE TO THE HCFA MEDICARE MORTALITY DATA

Bi-County Community Hospital is a 247 bed acute care hospital with an active full service Emergency Department. It is a fully equipped department with specialists available around the clock. Our Emergency Department physicians are trained and certified in Emergency Medicine. In addition to general internists and general surgeons, Bi-County has 38 subspecialists on staff whose primary practice site is at Bi-County Community Hospital. Therefore, the more severely ill patient is being attracted and admitted to our hospital. This is confirmed by the Michigan Hospital Association statistics that show Bi-County Community Hospital as having 9% more cases with one (1) or more co-morbidities than the state average. Co-morbidities are the presence of additional medical conditions that further complicate the treatment of the patient and reflect a higher severity of illness index. Although we are a community hospital, we have eleven (11) critical care beds as well as 30 progressive stepdown beds and 23 cardiac stepdown beds which provide a level of care approaching that of a medical center. The type of patients treated in these units also contribute to the higher severity of illness index experienced at Bi-County Community Hospital.

Several of our physicians are participating physicians at local extended care facilities. As a result, a higher percent of our Medicare admissions are patients transferred from nursing homes. In fact, our entire service area encompasses neighborhoods with a large aging population. Of the 280 mortalities listed on your report, the average age of our patients was 76.8. Seventy-four percent of our mortalities were above the age of 70 with 25% of those patients between the age of 81-90, and 10% over the age of 90. In addition, we are a hospital that honors the NO CODE/DO NOT RESUSCITATE requests of family members. For instance, in the one category studied, 56% of the patients admitted had family requests to not resuscitate.

The HCFA Mortality rates alone do not necessarily constitute an appropriate measurement of quality of care. This fact has been confirmed by a study con-

13355 East Ten Mile Road
Warren, Michigan 48089
313-759-7300

ducted by the Michigan Peer Review Organization that targeted mortality review in over 20 hospitals in Michigan. The study confirmed that mortality rates are only an indicator of patient outcome, not the patient care process. The data does not take into account those patients who are at the end stages of their disease. Mortality rates do not take into consideration the severity of a patient's illness, patient's psychological state, the ability to return to activities of daily living or the home support needed.

The HCFA report does not include other major co-morbidities that have an impact on patient outcome but were not included in the data. Finally, the actual cause of death was not included or considered in ranking these patients in the various major diagnostic categories. And, in fact, in one category studied, 50% of the cases had a cause of death different than their primary reason for admission.

Another factor not considered in the HCFA study is the number of patients who die within hours of the hospital admission. Many patients are admitted through the Emergency Department or transferred from other acute-care facilities in extremely precarious conditions. Because we have an active Emergency Department multiple medical treatments are rendered to these patients to sustain life.

The HCFA data includes only the Medicare patient's last admission to the hospital. This does not represent total Medicare admissions, and thereby affects our mortality rate. Per Michigan Hospital Association, the HCFA data represents only 70% of Medicare cases, but 80% of the deaths. The 30% of the cases omitted would affect our mortality ratings.

In one category (Urological Diseases) our mortality rate is higher than the predicted rate. However, a review of these 16 patient mortalities revealed interesting data. Listed below are the major issues identified:

1) 63% (or 10 cases) were admitted from a Nursing Home. This indicates the patients are sedentary and are prone to having multiple medical conditions with a short life expectancy.

2) 56% (or 9 cases) had requests from the family members to not resuscitate, a request that we honor.

3) 50% (or 8 cases) had one or more of the HCFA identified co-morbidities, meaning a patient had prior existing problems aggravating the primary cause for admission.

4) 50% (or 8 cases) had a cause of death that was different than their principal diagnosis.

5) 56% (or 9 cases) had more than one admission in 1986, indicating the patient was more intensely ill than the patient who has only one admission for 1986.

6) The average age of these 16 patients was 80.2.

7) 3 of the 16 cases died after being discharged from the hospital. (Two of which were admitted from and transferred back to nursing homes.)

Bi-County Community Hospital has an ongoing quality assessment program which includes mortality review by all clinical departments. All cases in which death occurs undergo internal peer review for appropriateness and quality of care.

Below are the corrections of ten (10) patients where you have recorded the discharge date or date of expiration as incorrect. We submit these corrections so that your records will be accurate. The data underlined is what needs to be corrected.

HIC #	NAME	CATEGORY	AGE	SEX	ADM	DISCH.	DATE OF DEATH
[redacted]		CE	89	F	7/2	7/3/86	7/3/86
		GI	69	M	9/6	9/21/86	9/21/86
		GU	75	F	7/22	8/18/86	8/18/86
		ME	80	F	1/13	2/3/86	2/3/86
		PN	73	M	6/9	6/10/86	6/10/86
		PN	82	M	7/28	8/3/86	8/3/86
		PN	68	F	7/15	7/16/86	7/16/86
		UN	102	M	7/12	7/13/86	7/13/86
		UN	73	M	5/30	5/31/86	5/31/86
		UN	76	F	10/21	10/21/86	10/21/86

Respectfully submitted,

Gary W. Popiel

Gary W. Popiel, Vice President/Administrator
Administration

LMC/DK/gp/jmp/lmc

Blodgett
Memorial Medical Center

October 23, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Washington, DC 20201

Dear Dr. Roper:

Thank you for the opportunity to review the mortality information on Medicare patients treated in 1986 at our hospital. The following information should help put Blodgett Memorial Medical Center's mortality rates in perspective.

Hospital Characteristics

Blodgett is a 410-bed community teaching hospital. Its medical staff is comprised of 379 members. Fifty five percent (55%) of the active staff are either surgical or medical subspecialists. Nearly one-third of the inpatient admissions to our hospital come from outside our primary market area. A significant portion of these patient referrals are for cardiovascular, neurological or orthopaedic diseases and disorders. Due to the number of subspecialty physicians and the number of patient referrals from other communities, the mix of patients treated at Blodgett is more complex in nature than the average. One indicator of this is the CMI (Case Mix Index). This is a comparative statistic published by HCFA which measures the relative complexity of Medicare patients admitted to a hospital as compared to the national average. Blodgett's current CMI is 1.52, meaning that our mix of patients is 52% more complex than the average.

Mortality Data Verification

The mortality data reported by HCFA indicates there were 270 Medicare deaths within 30 days of admission. We were able to verify 211 of these as in-hospital deaths. The remaining 59 deaths are reported as occurring after hospitalization. We are currently attempting to verify this by surveying the physicians who provided care to these patients. HCFA reports a total of 2,881 Medicare patients were admitted one or more times during 1986. Our records indicate that there were 3,418 Medicare patients admitted one or more times during 1986.

Mortality Rate Analysis by HCFA

The analytical model used by HCFA measures the relationship between death and a selected group of patient characteristics. Severity of illness was not one of these characteristics since

this information was not available to HCFA (see Federal Register, August 19, 1987, p. 30742). Since not all of the significant characteristics which could contribute to death have been measured, the ability to predict the likelihood of death is limited. The analysis can serve as an initial screen to be used by medical peer review groups, but should not be used alone as an indicator of the quality of patient care.

However, we are pleased with your preliminary result which reflects an actual overall rate of 9% compared to the expected range of 8 to 14%. A better indicator, which applies to both Medicare and all other patients, is the CPHA data for 1986. This authoritative, independent source has a reputation for the quality of its data. Results for BMMC show a ratio of .805 compared to a regional ratio of .955. (An average ratio is 1.0. Below 1.0 is a good result). It is significant that this indicator includes patient illness severity factors to a greater extent than the HCFA report. We are proud of this positive result and remain committed to even further improvement.

Hospital Use of Data

Blodgett has an ongoing quality assurance program which has a dual goal of monitoring the quality and appropriateness of patient care and of taking action whenever opportunities to improve that care are identified. Mortality rates are one of many aspects of patient care that are continually monitored. Data from external sources, such as the HCFA Mortality Rates, are welcomed and are integrated into our internal data systems for review by the medical staff. More specifically, the HCFA data will undergo peer review by physicians to evaluate factors affecting severity of illness, to determine the relationships of the principal diagnosis (used by HCFA to group patients) to the actual cause of death, and to identify any pattern or trends that may benefit from indepth analysis.

Blodgett's Board of Trustees, medical staff and administration remain committed to continually assessing and improving its services to the Medicare population as well as all other patients who seek medical care at our institution.

Sincerely,

Terrence M. O'Rourke
President

/jng

BON SECOURS HOSPITAL

October 23, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

SUBJECT: Hospital Mortality Information
Bon Secours Hospital
Medicare Provider Number 230089

A number of limitations exist in HCFA's mortality data, to be published in December, 1987, as a measure of quality in hospitals. No direct link between the quality of care provided and mortality has ever been demonstrated. Therefore, Bon Secours Hospital objects to the publication of untested data suggesting a correlation between quality and mortality.

Detailed below are several comments regarding the mortality information:

-- First, severity of illness is not a factor included in HCFA's methodology for arriving at the hospital's expected mortality. Without factoring in severity of illness, mortality statistics become essentially meaningless.

-- Second, the data applies only to Medicare patients. At Bon Secours Hospital, this represents only approximately one-half the total patient population. Of those patients, over one-third of the Medicare patients included in HCFA's data are over the age of 85 years, well over the average American life expectancy.

-- Third, the diagnostic categories used should be more specific. For example, the diagnostic category "cancer" includes cancers known to have a high mortality, as well as those cancers with a lengthy survival period. If consumers are to find this data at all useful, the diagnostic groupings should be revised to a greater degree of specificy.

-- Finally, to attribute a patient's death to a hospital because the patient died within thirty days of the last admission to that hospital does not measure the quality of care provided by that hospital. Furthermore, the accuracy of HCFA's statistics on deaths after discharge cannot be verified by hospitals because they don't have access to the Social Security information used by HCFA.

468 Cadieux Road, Grosse Pointe, Michigan 48230 Good help to those in need since 1909

While Bon Secours Hospital supports the consumers' right to make informed choices about health care, the hospital cannot support the release of such limited information as a measure of the quality of the care provided by this facility.

Sincerely,

Henry DeVries, Jr.
Chief Operating Officer

HDV.1/lm

cc: Mr. S. Rallison

ATTACHMENT 4

COMMENTS ON THE HCFA MORTALITY DATA

Borgess Medical Center, Kalamazoo, Michigan

Data Verification

The data used by HCFA indicate that a total of 382 Medicare patients admitted to Borgess Medical Center died within 30 days of admission. Of these, 298 died while still a patient of the Medical Center, while 84 died after discharge. Our own records indicate that 5050 Medicare admissions occurred in 1986. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at Borgess Medical Center is correct. It is impossible to determine the percentage of the 84 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

In none of the diagnostic categories, the Medical Center's actual mortality rate falls outside of the range of the predicted mortality rate.

botsford hospital
an osteopathic institution general serving the community

COMMENTS ON THE HEALTH CARE FINANCING ADMINISTRATION MORTALITY DATA

October 26, 1987

Hospital Medicare ID number 230151

DATA VERIFICATION

The information contained in this report refers to Medicare admissions only. The data used by the Health Care Financing Administration (HCFA) indicate that a total of 340 Medicare patients admitted to our hospital during 1986 expired within 30 days of admission. Of these reported deaths, 299 were listed as occurring during the hospital stay, while 41 reportedly occurred after discharge from the hospital. With the information supplied by HCFA, we were unable to identify one of the reported deaths as having been a patient at our hospital. This would reduce our number of Medicare deaths to 339. HCFA reported a total number of cases of 1,928, based on the last hospital admission of the year for all Medicare beneficiaries in 1986. Our own records indicate that 3,328 total Medicare admissions occurred at our hospital in 1986. Presumably, the discrepancy reflects multiple admissions of the same beneficiaries. It is impossible to determine the exact cause of death of the 41 patients that died after discharge, as information concerning death after discharge is not included in the patient's medical record.

INTERPRETIVE REMARKS

In none of the 16 diagnostic categories reported by HCFA did our hospital's actual mortality rate fall outside of the range of the predicted mortality rate. However, our actual mortality rate for all causes, as calculated by HCFA based on last hospital admission, was 17.58%, which falls just outside of the predicted range of 10-17%. This statistical abnormality is most difficult to explain or understand. There are probably additional factors taken into account for this unusual variance when in all of the 16 diagnostic categories outlined, we fell within the predicted range for mortality rates. Our hospital mortality rate as calculated on the basis of total Medicare admissions (3,328) was actually 10.2%.

28050 Grand River Avenue • Farmington Hills, Michigan 48024 (313) 471-8000

botsford general hospital

RESULTS OF PRELIMINARY MEDICARE RECORD REVIEW

We have reviewed the medical records of all 339 Medicare patients admitted during 1986 who died within 30 days of admission. The following information is significant in that it takes into account additional factors that a crude mortality rate, such as that used by HCFA, does not incorporate.

PATIENT'S AGE

The average patient age for our 339 mortalities was 78 years. Additionally, 91 of those 339 patients, or 27%, were 85 years of age or older. This figure shows a significantly higher proportion of older patients at our hospital when compared with other institutions within our state.

REFERRAL FROM EXTENDED CARE FACILITIES

91, or 27%, of our Medicare reported deaths were patients transferred to our hospital from an Extended Care Facility. The fact the these elderly Americans already required some "taking care of" would place their health status in at least a somewhat compromised situation prior to hospital admission. There resilience to battle disease would certainly be impaired to some extent.

CO-MORBIDITY

Our patient's displayed an unusually high rate of co-morbidity factors. Co-morbidity factors are additional pre-existing medical problems complicating the patient's primary illness. Our patients displayed an average co-morbidity factor of 3.3. This means that on an average, each of our 339 Medicare patients that expired, had more than three additional significant medical problems complicating the primary illness at the time of their admission. This indicates that our patient population was more acutely ill when they were admitted to our institution for care as compared with other hospitals within our state.

DO NOT RESUSCITATE OR NO-CODE ORDERS

206, or 61%, of our Medicare reported deaths had an order on the medical record that no resuscitative measures be instituted. In the context of our hospital policy, this means that a physician has determined that the patient's condition is such that death is imminent and that the family has indicated that no resuscitative measures be instituted.

botsford hospital general

SUMMARY

The mortality rates reported by HCFA include many variables which have not been taken into account, as reflected in the preceding information. In addition, there is no medical authoritative organization that has ever suggested that mortality rates, as such, are any reflection on the quality of medical care provided at a hospital. Further, the Peer Review Organization in our state has publicly stated that mortality rates "are not good indicators for major quality problems". The severity of illness, as reflected in the above information, is probably the most significant factor that has not been taken into account. Our Case Mix Index (CMI), the level of medical services provided to patients, for 1986 was 1.27. Assuming an average CMI of 1.00, our institution was providing care for more acutely ill patients than the average hospital. In fact, for 1986, our CMI ranked 21st of 199 hospitals in our state.

We understand HCFA's desire to report hospital specific mortality rates to the American public, in general, and Medicare beneficiaries, specifically. However, it is felt that considerable refinement of the HCFA methodology is necessary before it represents an accurate measurement of quality. We sincerely hope that the reported figures will not cause undue and unnecessary alarm among our patients. As we stated earlier, there is no definitive correlation between mortality rates and the quality of medical care provided at a hospital. Our institution has pledged to deliver appropriate and indicated medical and surgical care to every patient. We stand behind that pledge and are willing to deal, on a case specific basis, with any allegations of inappropriate or sub-standard care delivered to any of our patients. We will use the data provided by HCFA to further intensify our in-house review and continue to assess the quality of care we provide.

FinalMort:G3

BRENT GENERAL HOSPITAL
16260 DEXTER BLVD. • DETROIT, MI 48221
(313) 862-3400

HCFA/EXEC.SEC.
1987 OCT 27 AM 10:52

October 20, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington, D.C. 20201

Re: Provider #230067

Dear Dr. Roper:

After careful review of the mortality rate data release that was mailed to our facility, several corrections and additions were made to the list of individuals who expired in our facility in 1986. (Please see attachment).

Thank you for the opportunity to review and respond to this data.

Respectfully submitted,

Lolita M. Dickerson, R.R.A.

Lolita M. Dickerson, R.R.A.
Director of Medical Records

LMD:pl
Enclosure

BRENT GENERAL HOSPITAL

HOSPITAL ID NUMBER - 230067

PATIENT ID NUMBER (HIC)	SURNAME (FIRST 6 LTRS.)	DIAGNOSTIC CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCH.	DATE OF DEATH	PRINCIPAL DIAGNOSIS	PRINCIPAL PROCEDURE
[redacted]		HM	086	M	01/28/86	02/06/86	02/06/86	4280	4254
		ME	069	M	10/21/86	10/31/86	10/31/86	25010	3324
		HM	082	F	10/22/86	11/14/86	11/14/86	4280	4415
		HM	080	F	7/15/86	7/20/86	7/20/86	4280	
		PN	068	M	11/4/86	11/10/86	11/10/86	485	

MI 36.1

October 26, 1987

HCFA/EXEC.SEC.
1987 OCT 27 PM 3:21

Mr. William L. Roper, Administrator
Department of Health and Human Services
Healthcare Finance Administration
Washington, DC 20201

Dear Mr. Roper:

Bronson Methodist Hospital has received and reviewed mortality data for the 334 Medicare patients HCFA reported died 30 days post admission to Bronson in 1986. The records of all these individuals have been reviewed by members of the Hospital's Medical Staff, Quality Assurance Committee, and quality assurance staff.

While Bronson does not regard mortality figures as a sole indicator of quality, we do appreciate the opportunity to incorporate the HCFA report into the Hospital's quality assurance process, which includes continuous review and report on patient care by each medical section, nursing and all pertinent ancillary departments. Any trends or patterns which arise from this data, or any other source, will receive immediate attention.

Our preliminary review indicates that appropriate care was rendered to these patients. We have noted some inconsistencies in the actual coding of certain patient diagnoses, and these are receiving further internal review.

Our review has indicated that of the 334 deaths, 49 occurred after discharge from Bronson. Of the 285 persons who died while hospitalized at Bronson, 213 (more than 75 percent) were persons whose physician, family and, when able, themselves, made the decision to not resuscitate in the event of cardiac arrest. In addition 10 persons requested no further treatment for the condition. Of those who died after discharge, 22 persons had been transferred to nursing homes, while 7 others died at home at the end stage of terminal illness.

While there are no corrections concerning the number of patients, we wish to point out one error concerning cause of death. [redacted] was admitted to Bronson for congestive

BRONSON METHODIST HOSPITAL
EXECUTIVE OFFICE

252 EAST LOVELL
KALAMAZOO, MICHIGAN 49007
616/383-9820

heart failure. [redacted] was discharged with the condition in control. [redacted] suffered a gunshot wound to the chest within 30 days post-admission which was the cause of death.

In addition, we wish to provide the following additional information concerning those Medicare patients who died after last admission to Bronson. The vast majority of patients whose records were reviewed were critically ill or injured upon admission to Bronson, with 50 percent having one or more additional complicating diseases (comorbidities). The greatest number of those who died were admitted at the end stage of a terminal disease.

The fact that a high percentage of Bronson's Medicare patients were severely ill may be explained by the type of services Bronson Methodist Hospital provides. A 456-bed regional medical center serving southwest Michigan, Bronson has the second highest percentage of beds devoted to critical care services of all hospitals in Michigan. The hospital's critical care services include an adult intensive care unit, medical and surgical cardiac intensive care units, an inpatient trauma care unit, a regional burn center, a regional trauma and emergency center and four mobile critical care transport units providing air and ground transport.

Sincerely,

Peter W. Froyd, F.A.C.H.E.
President

hp

BRONSON
VICKSBURG
HOSPITAL

October 26, 1987

William L. Roper, Administrator
Department of Health and Human Services
Healthcare Finance Administration
Washington, D.C. 20201

HCFA/EXEC.SEC.
1987 OCT 27 PM 3:19

Dear Mr. Roper:

Re: Bronson Vicksburg Hospital
Response to HCFA mortality rates

Bronson Vicksburg Hospital has received and reviewed mortality data for the 14 patients who HCFA reported died 30 days post admission to Bronson Vicksburg in 1986. The records of all these individuals have been reviewed by members of the hospital's medical staff and Quality Assurance committee.

While Bronson Vicksburg does not regard mortality figures as a sole indicator of quality, we do appreciate the opportunity to incorporate the HCFA report into the hospital's quality assurance process, which includes continuous review and report on patient care by each medical section, nursing and all pertinent ancillary departments.

Any trends or patterns which arise from this data, as from any other source, receive immediate attention. Our preliminary review indicates that quality care was delivered to these patients.

Of the 14 Medicare patients, one person requested no further treatment while 11 were persons whose physician, family and, when able, themselves, made the decision not to resuscitate in the event of cardiac arrest.

Sincerely,

M. Edward Spartz

M. Edward Spartz
President

mjp

13326 NORTH BOULEVARD
VICKSBURG, MICHIGAN 49097
616/649-2321

William G. Gonzalez
President and Chief Executive Officer

Butterworth
HOSPITAL

October 22, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
P.O. Box 26684
Baltimore, Maryland 21207

Hospital ID # 230038

Dear Dr. Roper:

Butterworth Hospital agrees that the HCFA mortality data can be useful in assessing the quality of health care, but should not be used as the sole basis in this determination. I am pleased to note that we fall within the predicted ranges of mortality in all areas.

Based upon the fact that Butterworth Hospital treats critically ill patients and the acuity level ranks among the highest in the state, I am particularly delighted that our continued efforts toward quality patient care have been so successful. This acuity level is reflective of the population of patients cared for at Butterworth which serves as a referral hospital for an eleven county area in the specialties of Cardiology, Cardiovascular Surgery, Oncology, Trauma Services, Obstetrics and Pediatrics. The HCFA mortality data coupled with other measures is used in our efforts to continue providing high quality patient care.

Please note that I have enclosed some apparent variances to your data. If you desire clarification, please do not hesitate to call me.

Sincerely,

William G. Gonzalez
President & CEO

WGG/sb

Enclosure

100 Michigan Northeast Grand Rapids Michigan 49503 Tel 616 774 1601

October 22, 1987

Errors in HCFA Mortality Data

INCORRECT DATES OF DEATH

					HCFA had
[redacted]	CA	Adm: 10/28/86	Death: 11/26/86		(11/27/86)
	PN	Adm: 04/10/86	Death: 04/13/86		(04/14/86)

HCFA stated that the criteria included "admissions in 1986." We found 4 cases that were admitted in 1985:

[redacted]	CE	Adm: 12/30/85	Death:	01/14/86
	HL	12/29/85		01/01/86
	HM	12/29/85		01/12/86
	UN	12/29/85		01/16/86

One patient was on the HCFA list as dying in our facility. The patient was transferred to another facility on the same day as HCFA says the patient died. Did patient die the same day as discharged from Butterworth, and die at the other facility? Patient did not expire at Butterworth Hospital.

[redacted]	CA	Adm: 05/14/86	Trans: 05/20/86
		Death: 5/20/86	

Some cases were listed in the wrong diagnostic category. They are as follows:

[redacted]	listed as HL, should be HS	414.0 should be 410.4
	listed as HL	414.8 should be 414.0
	listed as HL, should be HM	411.1 should be 428.0
	listed as UN	345.3 should be 250.71
	listed as UN, should be CA	682.6 should be 198.5

If you have any questions or comments regarding our findings, please feel free to contact Kathy Edlund, Department Manager, Medical Records, 616-774-1660.

CARSON CITY HOSPITAL
406 EAST ELM STREET
CARSON CITY, MICHIGAN 48811-9990
517 584-3131

October 27, 1987

William L. Roper, M.D., Administrator
Department of Health & Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Doctor Roper:

The data used by HCFA indicates that a total of 57 Medicare patients admitted to Carson City Hospital, Carson City, Michigan, died within 30 days of admission. Of these, 46 died while still a patient of the hospital while 11 died after discharge.

Our own records indicate that 530 Medicare admission occurred in 1986. Presumably the discrepancy reflects multiple admission of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at this hospital is correct. Our own records indicate that of the 57 Medicare patients who died within 30 days of admission, 46 died while still an inpatient and 11 were still alive at the time of discharge.

Enclosed is a copy of the listing with changes and an attachment showing verification of the data. It is impossible to determine the mortality percentages on the 11 patients dying after discharge who were in fact alive at discharge as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

In one of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. After correcting the errors in the recording of deaths, the number of categories in which the actual mortality rate is outside the range of the predicted mortality rate falls to zero. Several factors may account for this difference.

The results of the Preliminary Medicare Record Review is attached.

Sincerely,

CARSON CITY HOSPITAL

Bruce L. Traverse
President

BLT:wg
Encl.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

ATTACHMENT 5

CARSON CITY HOSPITAL, CARSON CITY, MI 48811

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	8	1	8	1
CE -- Cerebrovascular Accidents	4	0	4	0
GC -- Gastrointestinal Catastrophes	1	0	1	0
GI -- Gastrointestinal Disease	2	1	2	1
GU -- Urologic Disease	0	0	0	0
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	2	0	2	0
HM -- Severe Chronic Heart Disease	8	3	8	3
HS -- Severe Acute Heart Disease	4	1	4	1
ME -- Metabolic/Electrolyte Disturbances	0	1	0	1
OP -- Orthopedic Disorders	0	0	0	0
PN -- Pulmonary Disease	4	1	4	1
RN -- Renal Disease One date of death wrong	5	0	5	0
SE -- Sepsis	2	0	2	0
TR -- Severe Trauma	0	1	0	1
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	6	2	6	2
Total -- All Categories	46	11	46	11

MI 43.1

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

Of the 46 who died in the hospital our records indicate the family wished no resuscitative measures be instituted.for 15 of the patients. For another 9 patients no artificial life support was to be instituted,per family. 7 of our patients were in the advanced stages of the disease process at the time of admission.

On one patient the date of death was wrong. The patient died in the hospital, not after discharge.

One patient went home against medical advice.

CENTRAL MICHIGAN
COMMUNITY HOSPITAL
YOUR PARTNER FOR HEALTH

1221 South Drive
Mt. Pleasant, MI 48858-3234
517 772-6700

October 27, 1987

Mr. Harvey Brook
Health Standard & Quality Bureau
Room 2-D-2, Meadows East Bldg.
6300 Security Blvd.
Baltimore, MD 21207

Dear Mr. Brook:

The data used by HCFA indicates that a total of 105 Medicare patients admitted to Central Michigan Community Hospital died within thirty days of admission. Our records indicate that Central Michigan Community Hospital admitted a total of 4,604 Medicare patients during the year in question, so the 105 deaths indicate a gross mortality rate of 2.3% among our Medicare patients.

Of the patients involved in this data base, 80 died while in the Hospital. For 35 of these patients (43.8%), death was the anticipated outcome upon admission. (Among this subset, 21 patients were transfers from a long-term care setting or from another acute care hospital. This should be considered a contributing factor in computing expected range of mortality. It is not clear from the HCFA data that such transfer status was factored into the computation.)

Of the 25 patients who expired after discharge, death was the anticipated outcome for 10 patients (40%). Of the remaining 15 patients, 7 expired from causes unrelated to the condition for which they were treated during their Central Michigan Community Hospital admission.

While the HCFA formula developed a range of expected mortality rates allowing for one comorbidity factor, 66 of these 105 patients (62.8%) had two or more comorbidity factors. This, of course, skews our Hospital specific rate toward the high side.

Sincerely,

Michael H. Deskovitz
Vice President, Finance

MHD/psm

Medicare Provider # 23-0080

CLARE
COMMUNITY
HOSPITAL

A Subsidiary of
MID-MICHIGAN
HEALTH CARE SYSTEMS, INC.

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Thank you for sending our data package on Medicare mortality rates. We appreciate the opportunity to review and comment on these data before their release to the press.

The Health Care Financing Administrator's (HCFA's) efforts to address quality issues are to be applauded. The compilation and dissemination of comparative data may be a reasonable preliminary step in this process provided that the limitations of these data be explained before public release. We believe the most significant of these limitations to be the absence of a severity-of-illness measure in the variables measured.

To those who attempt to interpret these data, we wish to add these observations:

-the average age of the patients in the data was almost 80 years old.

-in our areas with the greatest numbers of deaths (severe acute and severe chronic heart disease), 86% of admissions came through our Emergency Department, 46% were admitted with "DNR" orders, and almost 70% were admitted with comorbidities.

In light of these observations, the need for a severity-of-illness measure becomes more obvious, if the data are to be interpreted meaningfully. We encourage any interested person to contact his or her doctor or a representative of the hospital.

104 W. Sixth Street • Clare, Michigan 48617 • (517) 386-9951

We regularly review mortalities as part of our ongoing quality assurance program and we appreciate your sharing these data with us. We will continue to be vigilant in examining all aspects of patient care with the goal of improving our performance.

Sincerely,

Lawrence F. Barco

Lawrence F. Barco
President

LFB/s

community memorial hospital
748 south main st. / p.o. box 419 / cheboygan, michigan 49721 / (616) 627-5601

REVISED

October 27, 1987

Health Care Financing Administration
200 Independence Avenue, S.W.
Washington, D.C. 20201

RE: Comments of HCFA Mortality Data

We at Community Memorial Hospital believe the data released by HCFA may be misleading to consumers, mainly because it indicates it is a way to measure quality, rather than another means--combined with other information--to ensure quality.

The data does not reflect the severity of illness, in fact even if the illness is terminal; it does not look at only those patients who die in a particular hospital--or if perhaps they had been in several hospitals within the 30-day time range.

In the case of the one category where our quartile is 75% above other hospitals, the category reflects a comorbid condition, the patients were both above 80 years old and in the advanced disease stage. If the data show up without qualifying information it will look as if we regularly lose 75% more patients with that condition than other Michigan hospitals. That is unfair, does not reflect how stringent quality assurance means are in our facility and does not mention we are already working with debilitated patients.

We appreciated HCFA's time and concern in collecting and distributing the data, but we believe you should look at only those patients who actually died in a given facility, and not encourage consumers to use data as a measure of quality.

HCFA/EXEC.SEC.
1987 NOV -2 PM 3:07

Sincerely,

COMMUNITY MEMORIAL HOSPITAL

Howard J. Purcell, President

HJP/jw/bt
cc: R. K. Homsi, M.D./Medical Director
P. Wollangur, ART, Director/Medical Records
N. Fiedler, MHA

COTTAGE HOSPITAL
OF GROSSE POINTE
AFFILIATED WITH HENRY FORD HEALTH CARE CORPORATION

159 Kercheval Avenue
Grosse Pointe Farms, Michigan 48236-3692
(313) 884-8600

October 21, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

To Whom It May Concern:

Thank you for making available the data on medicare patients who died within 30 days of their last admission to hospitals during 1986. I appreciate the opportunity of being able to review and comment on the information as it applies to Cottage Hospital in advance of its release to the media.

Cottage Hospital is a general acute care facility which takes great pride in the quality of the care provided its patients. We constantly monitor our performance in an effort to maintain the high standards to which we aspire. Every death occurring in the hospital is reviewed as a matter of policy. Accordingly, approximately 77% of the deaths listed in your report were reviewed because they occurred in this hospital. Those not occurring in the hospital were not reviewed. In many cases, we had no knowledge that they occurred.

In all diagnostic categories except one, cancer, Cottage Hospital's actual mortality rate was within the range of predicted mortality rates established by the Health Care Financing Administration. This single exception is to be expected however. Cottage Hospital is the only medicare-certified hospital-based hospice program in southeastern Michigan. All of the patients admitted to this program are terminally ill cancer patients and must be in the final stages of their illness in order to be accepted for hospice participation. Many of them die in the hospital while others die at home under medical supervision soon after discharge. This, no doubt, explains the fact that, in this diagnostic category, the actual mortality rate exceeds the predicted range.

As a matter of general information, this hospital is closely affiliated with two nursing homes, many of whose patients are transferred here when they become so ill that the nursing homes can no longer provide the proper level of care.

Lastly, it needs to be understood that mortality statistics are not in themselves good indicators of quality care. Mortality data does not address the severity or intensity of a patient's illness.

Cottage Hospital will continue to monitor all care and treatment given to our patients in order to maintain our superior level of performance and commitment to the provision of quality medical care.

Sincerely yours,

Ralph L. Wilgarde
Executive Vice President

RLW/jb

CRITTENTON

October 20, 1987

William L. Roper, M.D.
Administrator
Department of Health and
Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

Attached please find listing of identified errors in the HCFA Mortality Data which was furnished to Crittenton Hospital. We have also included our comments regarding the quality of data being released.

Thank you very much for allowing our comments.

Sincerely,

Theresa Hallman

Theresa Hallman
Vice President Administrative Services

TH/pm

Enclosures

CRITTENTON HOSPITAL
1101 W. University Drive • Rochester, MI 48063 • (313) 652-5000

October 20, 1987

RE: Comments to accompany data corrections of HCFA Mortality Data

Errors in the Data

Fifty-four (54) of the 214 cases included in the HCFA data for Crittenton Hospital were indicated to be post hospital deaths. Eleven (11) of these are believed to be in error, as summarized below:

6 HCFA data did not include last hospitalization (death occurred during hospitalization).

- 3 diagnostic category changes with correct data
- 3 diagnostic category remains the same when corrected

4 HCFA data includes last hospitalization, but discharge date is in error; death occurred during hospitalization

1 HCFA data indicates date of death seven (7) days following discharge; death occurred during hospitalization.

Possible Omissions in the Data

Hospital discharge data system indicates additional Medicare deaths not included in the HCFA listing. It is not possible, due to time constraints of this comment period, to verify third party payor.

Confusion in the designation of Diagnostic Category

Artifacts in the diagnostic coding procedures may misrepresent the actual diagnostic category of the patient; e.g., a patient treated for pathological fractures resulting from metastatic bone disease with subsequent discharge to a hospice and death within 30 days of admission will be reported as a death in the low risk category of "orthopedics".

Statistical Significance of categories with small numbers

Diagnostic categories with small numbers may be represented with extrapolated statistical predictions which are not statistically significant.

October 20, 1987

Crittenton Hospital ID# 230254

RE: Errors in the data presented in the HCFA listing

Presented in order of the Diagnostic Category provided in the HCFA Listing:

	Category			
[redacted]	CA*	Missing last admission	adm. disch.	6-11-86 6-20-86
		*Diagnostic category changes to PN		
[redacted]	CA	Missing last admission	adm. disch.	12-27-86 1-3-87
[redacted]	HS	Discharge Date	disch.	7-3-86
[redacted]	HS	Discharge Date	disch.	2-24-86
[redacted]	HS*	Missing last admission	adm. disch.	6-10-86 6-12-86
		*Diagnostic category changes to PN		
[redacted]	ME*	Missing last admission	adm. disch.	6-29-86 7-6-86
		*Diagnostic category changes to CA		
[redacted]	PN	Discharge Date	disch.	6-16-86
[redacted]	PN	Discharge Date	disch.	7-17-86
[redacted]	PN	Missing last admission	adm. disch.	5-5-86 5-7-86
[redacted]	RN	Missing last admission	adm. disch.	2-23-86 3-7-86
[redacted]	UN	Date of Death	death occurred at discharge	

DETROIT RECEIVING HOSPITAL AND
UNIVERSITY HEALTH CENTER
4201 ST. ANTOINE
DETROIT, MICHIGAN 48201

October 26, 1987

William L. Roper, M.D.
Administrator
HEALTH CARE FINANCING ADMINISTRATION
Department of Health and Human Services
Washington, D.C. 20201

Re: Hospital Medicare I.D. #: 230273

Dear Dr. Roper:

We appreciate the opportunity to review and respond to the 1986 Medicare mortality data relative to Detroit Receiving Hospital and University Health Center.

Detroit Receiving Hospital and University Health Center is a 340-bed emergency/trauma hospital and a subsidiary of The Detroit Medical Center, located in mid-town Detroit. Over ninety-five percent of our patients are admitted via the Emergency Department. As a specialty hospital, approximately thirty percent of our beds are categorized for intensive care and intensive care step-down of various types. We have a Burn Center, a Spinal Cord Injury Unit, Coronary Care, Surgical Intensive Care, Medical Intensive Care, and Pulmonary Special Care, in addition to a full complement of medical and surgical acute care beds.

Detroit Receiving is, therefore, an institution which provides tertiary care for the most serious illnesses and injuries. The community's emergency medical transport system relies on our availability. Hospitals and nursing homes transfer to us patients whose conditions require care beyond the expertise of acute and long term care community facilities.

The 1986 HCFA Medicare mortality data reinforce what we have always known about our older patients, particularly as it relates to the severity of their illness (which is not adequately addressed by the DRG classification system), their poor underlying health status, and their lack of social support system.

We reviewed patient records referenced in the HCFA data and found that the mortality data are accurate. By DRG rules, the coding was appropriate as to principal diagnosis, but the cause of death of a significant number of the patients differed from the principal DRG diagnosis. Many patients had metastic cancer.

For the two diagnoses in which our mortality statistics were outside of the "predicted range", we found the following:

-42% of the patients were transferred to Detroit Receiving from another hospital or from a nursing home;

-62% of the patients were admitted to an intensive care bed at Detroit Receiving;

-42% of the patients had a history of substance abuse;

-81% of the patients were dehydrated upon admission to Detroit Receiving;

-57% of the patients (15) were admitted from "home"; of these, all but one lived alone.

We will be using these mortality data as an integral part of our on-going quality assurance program, and as a basis for understanding and advocating for the unique requirements of the older population we serve.

Sincerely,

Edward S. Thomas

Edward S. Thomas
President and
Chief Executive Officer

/dh

Doctors Hospital

2730 East Jefferson Avenue • Detroit, Michigan 48207

Telephone (313) 259-3050

COMMENTS ON MORTALITY DATA INTERPRETATION

Medicare Provider #: 230090

A careful review of the figures and methodology involved in the Health Care Financing Administration's (HCFA's) mortality rate study reveals use of incorrect data as well as flaws that not only make the information difficult to interpret, but artificially inflate the percentage of mortalities at Doctors Hospital as well. To put HCFA's mortality data into accurate and meaningful context, additional factors demand consideration:

1) the total number of Medicare discharges attributed to our facility under HCFA's methodology only reflects about half of our true number of total Medicare discharges and therefore artificially drives up our mortality percentage;

2) our own records (substantiated by PAS) indicate that HCFA used incorrect figures for our total number of Medicare deaths;

3) 90% of our Medicare patients are transferred to our facility from inner-city nursing homes and the HCFA study makes no allowance for the special characteristics of the nursing home patient - i.e., advanced age, severity of illness and socio-economic factors that adversely affect health. Please note: HCFA does make adjustments for some of these factors for some Medicare patients, but, according to the Michigan Hospital Association, **not for Medicare recipients who are nursing home patients.**

To elaborate on these points, let's first take a look at HCFA's method of determining the mortality percentage. In 1986, Doctors Hospital had a total of 744 Medicare discharges and 116 Medicare deaths. If we figure the mortality percentage directly from those numbers, using 116 as the numerator and 744 as the denominator, our mortality rate was 15.5% - **well within HCFA's predicted range for our hospital.**

However, in the methodology used to set up their model, HCFA didn't use the total number of Medicare discharges as the denominator. Instead, they used the number of Medicare patients for whom Doctors was the place of last admission in 1986 - in other words, the patients who weren't seen by any other hospital after they

were seen here. In the parameters of the study this reduces our number of discharges by nearly half, to 395. The numerator remains the total number of Medicare deaths in 1986, which HCFA has put at 105, somewhat less than the actual 116. This manner of determination artificially inflates our mortality rate to 27%.

In addition to what we see as inaccuracies and discrepancies in dealing with figures, the HCFA study did not make any provisions to compensate for factors which invariably have a negative effect on health - advanced age, severity of illness and socio-economic status - where these factors apply to nursing home patients. **An estimated ninety percent** of the Medicare patients at Doctors Hospital are transfer patients from inner-city nursing homes. These patients are already so ill that they require around-the-clock care and their illnesses are complicated by their life-long, impoverished inner-city lifestyle. In short, these patients have been physically weakened more than those in other circumstances by a lifetime of wants: the lack of good, well-rounded prior medical care, good nutrition and exercise. The deteriorated condition of our Medicare patients is also indicated by an average length of stay 20% higher than the state average: 11.8 days as opposed to the 9.4 day state average.

Advanced age also plays a part in severity of illness - the older a patient is, the more frail and susceptible to complications. Because of the Doctors Hospital specialized program for the elderly, the average age of patients is much greater than the norm. To demonstrate, according to a 1985 report published by the Greater Detroit Area Hospital Council, in some age categories, we treat as many as 662% more elderly than average in other southeast Michigan hospitals.

	Doctors Hospital	Average of other S.E. Michigan Hospitals
Patients over age 65	64.8%	16.6%
Patients aged 65-74	23.2%	3.5%
Patients aged 75+	41.6%	13.1%

For further comparison, HCFA identified the age of 70 as being a comorbid factor. The average age of our expired Medicare patient was 79.87 years - **nearly 10 years greater than that identified by HCFA.**

A close look at the individuals that accounted for the 105 Medicare deaths charged to us by HCFA in 1986 will also reveal that they were not only the extremely elderly, but also the very ill:

* 32, or 30.4%, of the expirations were patients older than age 85.

* 18, or 17%, of the Medicare deaths occurred within 24 hours of admission, indicating their extremely deteriorated condition upon arrival. The principal diagnosis for those patients were high risk, including Metastatic Carcinoma, Bowel Obstruction, Intestinal Perforation, Congestive Heart Failure, Acute Myocardial Infarction, Pneumonia, Respiratory Failure, Deep Vein Thrombophlebitis (with probable pulmonary embolism) and Cariogenic Shock.

* 85, or 81%, of the Medicare deaths were patients with 2 or more comorbid conditions and/or complications (excluding age.)

* 79, or 75%, of the Medicare deaths were patients with principal diagnosis that fell into HCFA's "high risk" categories.

Lastly, we would like to make clear our belief that the mortality data is skewed by the inclusion of all deaths that occurred within 30 days of discharge. We have no record of when or where those patients died; those deaths could have been totally unrelated to the reason they were in the hospital - a fatal traffic accident, for instance. Also, we wish to offer our assurance that we make every effort to continuously monitor our quality of care, as evidenced by the ongoing work of our own Internal Peer Review Committee that reviews mortalities and other data. In addition, our quality of care and mortality rates are regularly reviewed by MPRO, the Michigan Department of Public Health and JCAH, now known as the Joint Commission on Accreditation of Health Care Organizations.

In conclusion, we would like to state that Doctors Hospital has always and will continue to provide a quality of care that cannot be judged solely from HCFA's isolated mortality data. The bulk of our hospital patient load is the very ill, impoverished elderly patient who comes to us in desperate need of care. For that reason, on the surface, our mortality rate may appear a little higher than normal. The way to lower our mortality rate would be to change our patient mix and not accept the high risk cases; however, we feel a responsibility to the people of Detroit to maintain not only a quality facility, but a reliable one willing to receive the very sick and elderly. In this light, we trust the public to look at the patients and conditions behind HCFA's numbers.

SPARROW HOSPITAL

F.K. Neumann
President and Chief Executive Officer
Telephone: (517) 483-2501

October 27, 1987

Re: Hospital Mortality Information-Sparrow Hospital, Provider Code 230230

Dear Reader:

Our hospital has reviewed the hospital mortality data and all of the explanatory information provided from the Health Care Financing Administration. We are very concerned that this data will be misinterpreted as a measurement of the quality care provided at hospitals. Because of this, the hospital is providing more information on the points which are most relevant to understand, as follows:

° The statistics presented apply to Medicare patients only. These patients are in the 65+ age group or are disabled and are naturally at greater risk than the general population. Thus, HCFA's reported range of predicted mortality rates, and a hospital's actual mortality rate, cannot be applied to the general patient population in a hospital.

° The data was assembled by HCFA from the billing claims sent to Medicare. It was never the intent or expectation that billing data would be used for this specific purpose. In our internal analysis, adjusting the data in the same manner as HCFA (to the extent possible), we found errors in the number of cases included in HCFA's report. These differences were significant and have distorted the mortality rate (and probably the expected mortality rate) for our hospital.

° The mortality data merely represents a statistic of the predictable mortality based on a variety of factors, such as age and other medical conditions. Two of the most critical indicators were not weighed in HCFA's methodology: the severity of the patient's illness and the appropriateness of the treatment provided. These factors can only be evaluated through intensive analysis of individual medical records.

° Hospitals are involved in many dynamic quality assurance programs to monitor the care provided and to insure that patients receive high quality care. Most hospitals have a Quality Assurance Committee to oversee the process. They intensively review individual patient records, the medical staff departments review all deaths, the physician staff are continually evaluated and all reappointments to the medical staff are reviewed annually.

For these reasons, and others, our hospital believes the data is not a measure of a hospital's quality of care. Further, because this data will be misinterperted and viewed as a quality measure, we disagree with HCFA's publication of such.

Any questions related to Sparrow Hospital should be directed to Wilford E. Maldonado, M.D., Senior Vice President-Medical Affairs.

Sincerely,

F. Karl Neumann, President and Chief Executive Officer

1215 East Michigan Avenue
P.O. Box 30480, Lansing, Michigan 48909
(517) 483-2700

EMMA L. BIXBY HOSPITAL
818 Riverside Avenue • Adrian, Michigan 49221 • 517 263-0711

October 22, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21202

Dear Sir:

Data Verification

The data used by HCFA indicates there were a total of one hundred and fifty-three (153) Medicare patients admitted to Emma L. Bixby Hospital in 1986 who expired within thirty days of admission. Our records indicate one thousand four hundred ninety-four (1,494) Medicare patients were admitted in 1986 with one hundred forty-eight (148) expiring within thirty days of admission. There were five patients transferred to other facilities which may reflect multiple admissions of individual beneficiaries to different hospitals. We have been unable to verify these deaths. In addition to the five unverified deaths, there were four patients whose death dates were incorrect according to HCFA data.



Expired 1/12/86 instead of 1/13/86
Expired 12/13/86 instead of 12/15/86
Expired 4/25/86 instead of 4/28/86
Expired 3/1/86 instead of 3/2/86

Interpretive Remarks

After careful analysis of all data and thorough review of all records, several factors are evident and need to be taken into consideration in order to place the data in a more meaningful context.

1. Even though none of the actual mortality rates exceed the predicted range, it is vital to make note that **all** of the mortalities were patients who were expected to die, either at the time of admission, during their stay or after discharge based upon their admitting condition and diagnosis.

2. The ability of the HCFA model to detect differences in quality has never been evaluated. The data assumes that each hospital's patients are "average" except with respect to a few characteristics included in the statistical model. The model does not include measures of severity, stage of illness, whether the patient was receiving treatment at home prior to admission, whether the patient had a

terminal illness or the patient's psychological state or general health status.

3. Many patients with chronic or terminal disease are discharged from referring tertiary centers to return to their home community to die. These patients are admitted to our level two facility with secondary illnesses or in end-stage disease processes.

4. Physicians on staff at our facility also service five extended care facilities in our direct area. Residents of these extended care facilities are often admitted to our acute care hospital. The patients are transferred to the acute care setting by request of either physician, family or the extended care facility themselves. In almost all cases this occurred at the time of imminent demise. These extended care facility transfers account for 27% of the mortalities listed.

5. Mortality statistics do not identify areas in which the hospital provides "high quality" or "low quality" care or otherwise measure hospital performance. Quality can only be evaluated through the process of peer review not through simplistic statistical comparisons which are easily misinterpreted and can cause confusion and apprehension among Medicare beneficiaries and the public in general. Comparisons of actual and predicted mortality rates can only suggest that the hospital and its medical staff review an area to determine if a quality problem exists. Mortality data should appropriately be used as a screening tool to quide and focus peer review.

It is important at this time to point out that the cases listed in the HCFA data related to Bixby Hospital were systematically and comprehensively reviewed, either at the time of admission, during the hospital stay or after death by the Quality Assurance and/or Utilization Review Committees. At that time, problematic areas were identified and addressed.

Bixby Hospital places a high value on the quality of care it provides. Quality is the utmost concern to the hospital governing board, management and medical staff. Any indication of potential problems, including but not limited to, mortality lead to prompt investigation to determine if, in fact, a problem exists. When quality problems are identified, corrective action is swiftly taken, monitored and measured against expectations.

Thank you for this opportunity to communicate our views.

Very truly yours,

Douglas W. McNeill
President

ms

FOH
Gerald C. Selke, President
313.762-4600

HCFA/EXEC.SEC.
87 OCT 27 AM 10:50

October 21, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

Thank you for the information regarding Flint Osteopathic Hospital's mortality index for the treatment of Medicare patients in 1986.

Recognizing that you will be receiving many responses from hospitals across the country and having assured us that these all would be published in the Federal Register, I will keep my comments as brief as possible.

- We find the report useful as a tool for self-evaluation. Thank you for this information.

- One thing that is most obvious in our analysis is that the failure to recognize all comorbidities places a major limitation on the report. It is our opinion that if more of the secondary illnesses were used, the report would be more meaningful. As such, the report does not consider the severity of illness.

- The mortality index takes into consideration deaths that occurred within thirty (30) days of admission even though the death took place outside of the hospital. This is a report weakness in that the cause of death may not have had anything to do with the reason the patient was in the hospital nor does it take into consideration where the patient died, that is, hospice program, at home, nursing facility, etc. Also, the hospital is disadvantaged in its data review because it cannot verify the accuracy of patient death after discharge.

Flint Osteopathic Hospital, 3921 Beecher Road, Flint, Michigan 48502, 313.762-4000

- The mortality index, in and of itself, is not a measure of quality of care in a hospital. Only a review of the patient's medical record can lead to an overall determination, for it is that record which tells the whole story surrounding the patient including an expression of the severity of illness that faced the patient.

- We recognize that your intent is only to measure Medicare patient deaths but you must also realize that the public may believe the data to be representative of the entire hospital activity, and in the case of my hospital, that is far from the facts.

In spite of the precautions that HCFA may take in the public communication of mortality rates, we are concerned that the public will look at the data to "rank" hospitals and conclude that a higher rate is inferior quality of care. We trust that every announcement made by HCFA regarding mortality rates will continue to include a statement that the index is not a measure of quality of care.

Thank you for allowing us the opportunity to provide our comments.

Sincerely,

Gerald C. Selke

Gerald C. Selke, FCOHE; FHFMA
President

GCS:mr

FRANCIS A. BELL MEMORIAL HOSPITAL
101 SOUTH FOURTH STREET • ISHPEMING, MICHIGAN 49849 • 906/486-4431

ALFRED J. HENDRA
EXECUTIVE DIRECTOR

October 27, 1987

Comments on the HCFA Mortality Data

Data Verification

The data used by HCFA indicate that a total of 81 Medicare patients admitted to F.A. Bell Memorial Hospital in 1986 died within 30 days of their last admission. Of these, 64 died while still a patient of Bell Memorial, while 16 died after discharge *(3 errors). It is impossible to accurately determine that the deaths in all cases were predictable or related to the hospitalization or quality of care, as three expired out of the hospital and their death is not documented in the Hospital records. It is impossible to determine the accuracy of the data used in the analysis of patients who died elsewhere.

Attached are copies of records from the Medical Records Review conducted at F.A. Bell Memorial Hospital regarding the accuracy of data.

1. Incorrect age (2).
*2. Incorrect discharge & expired dates (3).
3. Incorrect codes on final discharge (2).

Factors Effecting Mortality Rates at F.A. Bell Not Considered By HCFA.

1. Age of patient - 38 of 81 over age 80 = 46%
2. Only 800 codes were used to identify co-morbidity (there are over 6,000 ICD9 CM codes.)
3. Two skilled nursing facilities are a part of this community. We provide hospitalization for the acute care stages of these chronically ill patients. (Most of these are already designated by their families as no code status).
4. Data reflects number of Medicare deaths per last admission only. Total hospital discharges in 1986 = 2,822 with 34 of deaths = 2% mortality rate!
5. Mortality Review is on-going at F.A. Bell in our Quality Assurance program.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Conclusion:

The final purpose of commenting on the data is to emphasize that although the HCFA data are not in themselves measures of hospital overall performance, we will use this data, along with internal data on all admissions to better focus our quality assurance activities and provide the latest standards of care to decrease the risks of death from all causes at F.A. Bell.

Charlotte Bosko, R.N.
Quality Assurance Coordinator

CB/rb

GARDEN CITY
HOSPITAL
OSTEOPATHIC

6245 N. INKSTER ROAD
GARDEN CITY, MICHIGAN 48135
(313) 421-3300

MEDICAL ADMINISTRATION

CALVIN C. KAY, D.O.
Senior Vice President, Medical Affairs
Ext. 4484

NORVILLE H. SCHOCK, Ph.D.
Vice President, Medical Education
Ext. 4486

October 26, 1987

Health Care Financing Administration
Washington, D.C. 20201

SUBJECT: RELEASE OF MORTALITY DATA
Medicare Provider 230244

Garden City Osteopathic Hospital received and conducted a preliminary review of the mortality data compiled by the Health Care Financing Administration (HCFA). The entire report will be subjected to in-depth review by hospital and medical administration. Following is a statement of our immediate concerns about the mortality data and grave reservations about release of this report with the implication that it measures quality of care and provides a basis for comparison of hospitals across the country.

Accurate mortality rate statistics are not indicative of quality of patient care provided in an acute care hospital. In fact there is no proven correlation between quality and mortality. HCFA's mortality report may be compromised by inaccuracies and severe limitations of its data base and methodology.

Specifically, HCFA's data base is derived from the bill for hospital services and is dependent on information available on that document. A bill does not in any way reflect process or structure of care provided to the patient. A bill does not provide any knowledge of the severity of the patient's illness, nor objectives of hospital care. A bill is only designed to account for provision of services for payment purposes.

Mortalities were classified based on the principal diagnosis appearing on the bill. This is not necessarily the cause of death in the elderly patient, and might not even be related. Since a maximum of five diagnostic codes are allowed on the Medicare bill, diagnostic information available to HCFA for this study did not always include concurrent comorbidities. And yet comorbidity is a patient characteristic utilized by

HCFA in their statistical model, implying significance to the presence of comorbid conditions at the time of death.

The methodology used by HCFA to develop this report has not been validated. The significance of the patient characteristics used in the model in influencing the risk of death is unknown. Demographic and chronological data is flawed. Hospitals can't always prove or disprove their own data due to lack of accessibility to other sources used by HCFA, such as records from other hospitals and Social Security.

Preliminary review of a sample of Garden City Osteopathic Hospital's data reveals numerous inconsistencies as described above as well as data components which do not agree with our records. Impact of one specific error is a grossly inappropriate diagnostic category assignment. Also we are placed in a double jeopardy situation since patients who died in 1986 within thirty days of a 1985 admission are included, as well as a patient who died in 1987 within thirty days of a 1986 admission. It must be emphasized that with the information available to us, and without access to the information available to HCFA, we can only discover inaccuracy of some of the data, and cannot verify accuracy of many of the components. However, frequent variations in individual hospital reports raise serious questions about the reliability of HCFA's total data base.

Garden City Osteopathic is a community hospital and a multi-specialty teaching institution with a large Medicare census. We are a vertically integrated organization and provide care within our system from birth through to extended care, whether basic, skilled or hospice. Affirming our perspective on the value of human life and our mission to heal the sick, reality is that we also admit patients when the only possible outcome is death. Supportive care at an acute level for terminal patients is also part of our mission.

Garden City Osteopathic Hospital's administrative and medical staffs are utilizing this report as part of our ongoing quality assurance program. Quality measures will be instituted if deemed necessary or appropriate as a result of a comprehensive and clinical analysis.

Respectfully submitted,

Calvin C Kay DO

Calvin C. Kay, D.O.
Senior Vice President

CK:KE

Gerber Memorial Hospital
212 South Sullivan, Fremont, Michigan 49412 616 924-3300

October 20, 1987

COMMENTS ON THE HCFA MORTALITY DATA
Gerber Memorial Hospital, Fremont, Michigan

Data Verification

The data used by HCFA indicate that a total of 59 Medicare patients admitted to Gerber Hospital died within 30 days of admission. Of these, 38 died while still a patient of the hospital, while 21 died after discharge. Our own records indicate that 712 Medicare admissions occurred in 1986. presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at Gerber Memorial Hospital is correct. Our own records also indicate that of the 59 Medicare patients who died within 30 days of admission 21 were still alive at the time of discharge. (NOTE: the hospital should submit to HCFA a corrected copy of the patient listing clearly identifying any patients mistakenly coded as dead at the time of discharge.) It is impossible to determine the percentage of the 21 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

Without detailing information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

Interpretive Remarks

In none of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. After correcting the errors in the recording of deaths, the number of categories in which the actual mortality rate is outside the range of the predicted mortality rate falls to 0. Several factors may account for this difference.

Results of Preliminary Medicare Record Review

There were twopatients who were listed in the Post-hospital deaths that were actually in-hospital deaths one in the CE category and the other in the HL category. There was also one other in-hospital death that was not recorded. This patient would be in the HS category. Of the 19 deaths outside of the hospital 11 of these patients had been transferred from here to an ECF, 1 to an adult foster care facility and 7 were discharged home.

Marilyn Dekkers ART
Director of Medical Records

GLADWIN AREA HOSPITAL

A Subsidiary of
MID-MICHIGAN
HEALTH CARE SYSTEMS, INC.

October 27, 1987

HCFA/EXEC.SEC.
1987 OCT 30 AM 10: 23

William L. Roper, M.D. Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington DC, 20201

RE: Medicare Provider Number #230189

Dear Dr. Roper:

We are in receipt of the package of data from the Health Care Financing Administration regarding Medicare mortality rates at our facility. Prior to the public release of that data we would like to offer the following comments.

We appreciate the opportunity to review the data prior to publication and to submit our comments for inclusion with the release. It is our hope that the data will be as accurate as possible to avoid any distortion of the statistics or misrepresentation of the facts.

Upon receipt of the data we reviewed the information on a case by case basis, and compared the information to our hospital records. We recognize that a concerted effort was made to improve the methodology over the data released last year, however we still have some concerns.

Since Gladwin Area Hospital is a very small institution some categories include a very small number of cases which, because of the small statistical sample, can result in a very high percentage. Another complicating factor is that many of our patients are very elderly and may utilize our facility during the very late stages of their disease.

Furthermore, there may be many patient characteristics in addition to those used within the model, which may have an effect on mortality. Variations from the predicted range may in fact be due to other patient characteristics or events unrelated to hospitalization, statistical chance and/or quality of care.

Through our Quality Assurance program and our Mortality Committee activities all deaths that occur in the institution are thoroughly investigated. This investigation is aimed at

detecting potential quality problems, and if a trend is identified taking the appropriate corrective action. The data provided by HCFA will be included in our Quality Assurance program as part of our continuing effort to identify problems within our institution.

We appreciate the efforts that HCFA has made to improve the methodology by which the data is prepared. There may however be elements that would lead an untrained individual to draw conclusions other than those that are accurate. Therefore, we encourage anyone who has a concern as a result of the release of the data to talk to his or her physician or to contact a hospital representative.

As an organization with a strong committment to improving the quality of care we provide we welcome any source of information that assists us in our efforts to monitor quality care.

Sincerely,

Joseph M. Smith,
President

JMS/cwp



October 21, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

I am taking this opportunity to comment on the mortality data as compiled for Grand View Hospital, #230143. I do have some genuine concerns regarding the accurateness of this data. Grand View Hospital is a small rural facility and as such the number of cases in this study is relatively small. You have reported it as 614. By our calculations, this figure is too low. Our records indicate that Medicare last admissions minus transfers to PPS hospitals should be 671. This is a discrepancy of nearly 60 cases. How valid is our data if that many patient encounters are omitted?

I would also like to point out a death that does not belong on our mortality listing.

HIC#	SURNAME	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH
[redacted]	[redacted]	7/9/86	7/9/86	7/13/86

This patient was transferred to another PPS acute care facility - St. Mary's Hospital in Duluth, Minnesota. Our UB82 form shows this patient as a transfer.

I would also question the reliability of the data, since Grand View had so few patients in most of the 16 categories. With samples this small, Orthopedic Disorders as an example, the occurrence of only one more death could have dramatically affected the rate for that category. Grand View Hospital had 23 patients in this category with one death. This produced a 4 percent mortality rate. With those small numbers, I question whether this is statistically significant. The other misleading aspect here is the fact that the patient's death was not directly related to an orthopedic problem.

N10561 GRAND VIEW LANE . IRONWOOD, MICHIGAN 49938 . 906/932-2525 . SERVING THE PEOPLE OF THE GOGEBIC RANGE SINCE 1921

Let me briefly summarize this case. An 84-year-old female was admitted for management of her severe rheumatoid arthritis. The patient had co-existing medical problems including congestive heart failure and chronic anemia. The patient went on to develop pneumonia and septicemia. These were treated with appropriate antibiotics. The patient requested a No Code status. The patient refused respiratory therapy due to joint pain, and as a result the pulmonary condition worsened. The patient finally succumbed due to respiratory problems. This was an expected outcome given this set of circumstances. Perhaps it would be helpful to indicate that the categories as defined may not be directly related to the cause of death.

I do applaud HCFA's commitment to providing quality health care under the auspices of the Medicare program and agree that it is important for the public to have valid information regarding the quality of care provided in American hospitals. We at Grand View will use this data in our internal Quality Assurance Program. I do not, however, feel that mortality rates are a measure of hospital performance but should be used only to focus on and identify problems. Mortality rates alone cannot be viewed as a basis to judge the quality of care. To do so would be to mislead the American public and create fear, which is inappropriate.

Sincerely,

Wayne Hellerstedt
Executive Director

nm

Gratiot Community Hospital



A Community of Service

23-0030

UNDERSTANDING MORTALITY DATA

Gratiot Community Hospital's Response
to the Release of Medicare
Mortality Data by the
Health Care Financing Administration

Submitted by: Gratiot Community Hospital
300 Warwick Drive
Alma, Michigan 48801
517/463-1101, extension 353

Contact: Rebecca S. Cole, Director
Fund Development/Community Relations
or
Philip H. Kell, President

An understanding of Gratiot Community Hospital's Medicare mortality data, as released by the Health Care Financing Administration (HCFA), will be assisted by incorporating the following information. The narrative describes the hospital's program and commitment to quality care.

A quick scan of the HCFA statistics shows the hospital falling within the predicted range of mortality rates for each of the sixteen diagnostic categories. But to truly understand quality of care issues, consideration should be given to many additional items. Mortality data is in fact one of the measures Gratiot Community Hospital uses to continually assess the quality of their patient care program. Physicians, nurses, medical data analysts, clinical managers, and administrators routinely review the treatment that is rendered. Their review is part of a formal quality assessment program that has been in place for several years. They will assess how ill the patient was; did the patient have other complicating illnesses present; how advanced was the illness; how complex was the care they received; what types of technology, therapies, and specialists were needed and used, etc. It is normal for all deaths to be reviewed through the quality assessment process. However death is not the only outcome that is studied as a part of the hospital's quality assessment program. Quality review is conducted for all patients, and not just for Medicare patients. The focused mortality

(continued, next page)

rate in this study is for Medicare patients only. The statistics should not be confused with an inpatient mortality rate.

In terms of hospital capability, Gratiot Community Hospital is one of six rural referral centers in the State of Michigan. The designation, from the Department of Health and Human Services, recognizes the complexity of patient care rendered in concert with a high degree of physician specialists. In addition, Gratiot Community Hospital is also the Renal Dialysis Center for the Central Michigan area. A large proportion (42%) of all new dialysis patients are over the age of 60. The care of the older dialysis patient is often more difficult because of several comorbidities or complications.

In conclusion, the HCFA mortality data provides the hospital with another opportunity to review Medicare inpatient deaths, and to reassess medical performance. The data continues to be used as a part of a comprehensive quality assessment program that measures all aspects of patient care.

END

Harper·Grace Hospitals
Operating Harper and Grace Hospitals

3990 John R
Detroit, Michigan 48201

Grace Harper

October 27, 1987

William L. Roper, M.D.
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

Enclosed is a short statement that we would like to include as part of your Medicare Mortality Report.

Since we do not have a complete picture of all the data surveyed to compile the report, our comments are brief and general in nature.

Thank you for the opportunity to respond prior to the release of the information to the media.

Sincerely,

Melvin A. Lester, M.D.
Vice-President, Medical Affairs

MAL:kf

Enclosure

Harper·Grace Hospitals
Operating Harper and Grace Hospitals

3990 John R
Detroit, Michigan 48201

Grace Harper

COMMENTS HCFA DATA

In reviewing the overall information provided to us by HCFA, we have not been provided with all the data used to compile the report. Therefore, we are not in a position to validate or invalidate the accuracy of the data.

In an effort to address some of the concerns of the report, the following offers a brief profile of each of our hospitals.

HARPER HOSPITAL

Harper Hospital is an inner-city university affiliated teaching hospital which provides tertiary care. It accepts referrals from other hospitals of patients with terminal cancer who have failed to respond to conventional therapy. It cares for a large indigent population. It also offers one of the largest cardiology research centers in the state and, therefore, accepts referral of patients with end stage heart disease.

GRACE HOSPITAL

Grace Hospital is located in the City of Detroit. Medicare patients come from many socio-economic groups and levels. It is a university affiliated teaching hospital and also has a large indigent patient population.

Many medicare referrals come to the hospital from nursing homes and are near terminal when admitted to the hospital for treatment.

Approximately 78% of the medicare patients whose illnesses resulted in death, were between the ages of 70 and 100 years old.

Harrison
Community
Hospital

26755 Ballard Road
Mt. Clemens, MI 48045
(313) 465-5501

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington D.C. 20201

Medicare Provider #230257

Dear Dr. Roper:

In response to the publication of selected mortality information about all short term acute care hospitasl which treated Medicare patients in 1986, please consider the following:

HCFA's recent report indicated that we experienced a mortality rate of eighty six percent (86%) for patients admitted for treatment of severe acute heart disease and this rate exceeded the upper limit of seventy six percent (76%). An in-depth analysis of the six expirations revealed the following:

1) In one hundred percent (100%) of the cases, the patients were greater than 70 years of age, and sixty-six percent (66%) of the time the patients were over 80.

2) All six patients were referred to our emergency room from a local nursing home with which we have a transfer agreement.

3) In fifty percent (50%) of the cardiac cases, there was a written request by the patient's family to withhold all resuscitative measures.

The other category which was reviewed at length, involved six cases which supposedly expired as the result of pulmonary disease at the rate of thirty-two percent (32%).

1) Although one of the six patients expired at his home due to a long standing history of chronic obstructive pulmonary disease, it must be pointed out that he was discharged from our facility following repeated admissions which were both initially and subsequently denied by our state peer review organization as not being medically necessary.

2) Fifty percent (50%) of these patients had suffered from long term debilitating disorders (ie, carcinoma) and the pneumonia which was identified as the principle reason for admission cannot be assumed to be the direct cause of death. As you are no doubt aware, the application of ICD-9 Coding Principles and sequencing of diagnostic information for grouping purposes does not allow for an accurate demonstration of all of the causes which may be attributable to a patient's death.

3) In four of the six cases of pulmonary disease resulting in death, there were written requests by the patient's family to withold all resuscitative measures.

Is is our contention that the mortality data generated as a result of this activity is not a reflection of the quality of care rendered by this institution, but represents a statistical aberration. We would welcome the in-depth analysis of these records by our state peer review organization in order to substantiate this fact.

Since the publication of this type of statistical-data without benefit of explanation would serve as a grave injustice to our institution and has the potential for creating a major impact on the health care delivery system, the opportunity to provide this commentary is greatly appreciated.

Sincerely,

David M. Sessions
Administrator

DS:mjg

Henry Ford Hospital

2799 West Grand Boulevard
Detroit, Michigan 48202

OCTOBER 26, 1987

Mr. Harvey Brook
Health Standards And Quality Bureau
6325 Security Blvd.
Meadows East Building, Room 2D2
Baltimore, Maryland 21207

Dear Mr. Brook,

After reviewing the mortality data to be released by the Health Care Financing Administration (HCFA) in December, 1987, Henry Ford Hospital has concerns regarding the methodology used by HCFA:

1) There is no distinction between primary, intermediate, or tertiary care centers; nor is there a distinction between teaching versus non-teaching institutions. Patients treated at tertiary, teaching facilities tend to be more severely ill, at a more advanced stage in their disease process, and/or affected by multiple interrelated medical conditions. Urban referral hospitals also attract patients with more complicated medical conditions as do hospitals with major research centers such as Henry Ford Hospital.

2) There is absence of a severity of illness measure. Even though HCFA's model included selected significant associated medical conditions, there is no measure of the actual severity of illness associated with either the principal medical condition nor any associated medical conditions contributing to the severity in this elderly population under study.

3) The HCFA methodology can only take into account up to five contributing medical conditions. A review of our data indicates that the number of conditions contributing to the overall prognosis can range from one to fifteen.

4) Other significant factors may also have an impact on mortality for specific patients, i.e., the patient's socio-economic status which may affect his/her nutritional status, the patient's general health status and attitude about health care, the stage of the patient's illness, her/his psychological status at the time of the hospitalization, etc.

5) It is misleading to use patient deaths after discharge as an indicator of quality because the death may not have been related to the medical condition(s) under treatment during the last hospitalization. Death may have occurred while the patient was managed at home or in an extended care facility.

Therefore, it should be noted, that quality of care can not be inferred from the mortality statistics released by HCFA. This data may be useful in identifying areas for further review where a hospital's actual mortality rate exceeds HCFA's expected range.

Listed below are general comments related to the data released by HCFA on Henry Ford Hospital patients:

1) Close review of selected diagnostic categories used by HCFA indicates that the vast majority of the patients who died as an inpatient in Henry Ford Hospital were in the terminal phase of their medical condition at the time of admission.

2) The minority of patients who were not terminal upon admission developed a life threatening irreversible condition during the hospitalization, i.e., cerebrovascular accident, acute myocardial infarction, pulmonary embolus, etc.

3) Of the cases reviewed, there was no patient for whom a change in treatment would have altered the course of events. In all cases the patient expired as a natural outcome of the disease process.

4) Further review of the 145 patients who died after discharge from Henry Ford Hospital indicates that all their conditions were stabilized at the time of discharge.

5) All of these patients were discharged with a terminal, guarded or unpredictable prognosis for survival.

6) The hospital was made aware of these post discharge deaths in only a small percentage of the cases. Further review must be conducted to determine whether these post discharge deaths were related to the natural course of the disease process for which they were treated in the hospital.

7) It should be noted that 42% of the Henry Ford Hospital patients who had terminal disease and died within these sixteen disease categories exceeded 75 years of age which is the stated life expectancy of the general population. This is in contrast to the fact that only 12% of the total Henry Ford Hospital patient population exceeded this age range.

We appreciate the opportunity to review and respond to this data prior to public release.

Respectfully,

David W. Benfer
Executive Vice President

Provider Number: 230053

HOLLAND
COMMUNITY
HOSPITAL
602 Michigan Avenue
Holland, Michigan 49423
Phone 616-392-5141

October 26, 1987

Health Care Finance Administration
Health Standards and Quality Bureau
Hospital Mortality Information
Post Office Box 26684
Baltimore, Maryland 21207

Subject: Holland Community Hospital (Medicare Provider Number 230072)
Comments regarding the Health Care Financing Administration Publication of 1986 Mortality Information

Dear Dr. Roper:

Holland Community Hospital (HCH) submits the following comments to HCFA in response to the September 21, 1987, HCFA letter to hospital administrators regarding the HCFA plans to publish selected mortality information about all short-term acute care hospitals which treated Medicare patients in 1986.

Improvement in the quality of medical care delivered to all patients is a primary goal of Holland Community Hospital. Objective measurement, analysis, and dissemination of information about quality is key to achieving that goal. The release of data on quality performance to the public can promote consumer awareness of quality differences and may assist their decision-making. To that end, HCFA's publication of hospital mortality data has the potential of being a laudable effort.

Nevertheless, the reliability, accuracy and interpretation of such information is critical to the public's understanding and effective use of this data. Consequently, HCFA's tentative confidence in both the validity and usefulness of mortality information as reflective of a hospital's quality performance is of significant concern. In several instances, HCFA has stated awareness of the shortcomings in both the data and methodology. HCFA notices have stated "mortality rate at a given hospital reflects, among other factors, the age, sex, diagnosis and severity of illness of patients admitted to that hospital." HCFA has also stated in notices that "not all of the factors affecting the probability of death in a particular case, most notably severity of illness, are included in the predictive model." HCFA notices have also stated that "a difference between a hospital's actual and expected mortality rates cannot be definitely constructed as reflecting especially high or low quality of care. This difference may, in fact, result from factors not included in the predictive model."

HOLLAND
COMMUNITY
HOSPITAL

Since HCFA plans to proceed with publication of mortality rates despite reservations and a lack of complete confidence and validity of the data and analysis methods, HCH is concerned about the methodology and potential misinterpretation of this data by the public. In addition, and in coordination with the Voluntary Hospitals of America, HCH supports the comments (some of which have been used in this letter) and recommendations submitted by the VHA in its September 4, 1987, letter to HCFA. In particular, HCH supports the following recommendations to improve the proposed process for review and release of the data:

1. HCFA has stated in notices that the proposed methodology does not account for intensity or severity of patient illness. The absence of this factor in the mortality calculations will render erroneous and misleading results for many hospitals. HCFA should provide the public with examples of how this could occur and stress that severity of illness is unaccounted for.

2. HCFA has also stated in notices that the fewer the number of admissions, the less reliable the statistical outcome. HCFA should use a minimum threshold of admissions for each category reporting a specific mortality rate. If the minimum threshold is not attained by the hospital, then no statistical rate should be published.

3. There is concern that the 30-day post-admission period will lead to the inclusion of many deaths in the mortality data that are unrelated to the reason for admission. For instance, accidental deaths or deaths due to other complicating illnesses could occur which have little or no relationship to the previous hospital stay. It is recommended that either a shorter time period be used, i.e., one week post-discharge, and that certain types of deaths, e.g., accidents, be removed from the data.

4. The data categorizes deaths according to principal diagnosis and compares actual hospital experience with expected ranges from a predictive model. Some patients do not die from the principal diagnosis. For example, a patient may be admitted for surgical fixation of a fractured hip, but expire from a fat embolus prior to surgery. The data will show this patient as an orthopedic death. However, if the patient had been admitted post-operatively for treatment of the embolism, he would have been classified as a medical death. HCFA should develop and utilize a more accurate methodology for data analysis which takes into account significant clinical factors in addition to principal diagnosis.

5. The HCFA data does not show the source of the patient's admission. Patients admitted through the emergency department may be generally

HOLLAND
COMMUNITY
HOSPITAL

high-risk candidates compared to other patients. Likewise, patients admitted from nursing homes tend to be more critically ill than those admitted from their own homes. HCFA should use a more accurate methodology of data analysis which takes into account patient admission source.

6. The Holland Community Hospital specific data includes a statistically wide range in the predictive model's range of predicted mortality rates for the diagnostic categories of ophthalmologic disease (0 to 99% range of predicted mortalities) and gynecologic disease (0 to 85% range of predicted mortality) rates. HCFA should review the validity of the statistical predictive model's calculations of ranges of predicted mortality rates for the diagnostic categories of ophthalmologic disease and gynecologic disease specific to Holland Community Hospital.

We appreciate the opportunity to present our comments on HCFA's proposed release of hospital mortality information, and we ask your careful consideration of our recommendations.

Sincerely,

David Andersen

David Andersen
President

Holy Cross Hospital

4777 East Outer Drive • Detroit, Michigan 48234-3281 • Phone 369-9100

Holy Cross Hospital Response to HCFA Mortality Rate Data Release

The release of mortality rate data by HCFA to the media has the potential of causing more confusion for the public rather than clarification and insight into a hospital's quality of service and care. It is acknowledged by health care experts that there is "no correlation between quality and mortality rates." [1] Thus, interpretation of this data would lead to misleading conclusions by the general public and media which publicize this information.

Although the 1986 HCFA model is significantly more comprehensive than that used last year, it still is untested, and thus the reliability and validity of the data are statistically questionable. The chief of heart surgery at a southern hospital specializing in heart surgery stated that "reporting mortality rates is dangerous because it could cause a situation where heart surgeons are less willing to operate on especially sick patients, that all hospital death rates fluctuate widely from year to year and thus mortality rate data should be standardized for case severity and data for several years be used." [2]

A spokesperson for another hospital noted that they had a "long history of providing compassionate health care for geriatric patients and one should expect a higher rate in that age group." [3] Elderly patients may have several life-threatening problems (co-morbidities) at the same time such as cardiovascular disease, high blood pressure, diabetes, and kidney disease.

At Holy Cross Hospital, the co-morbidity average of those included in the 1986 mortality rate data in several of the DRG categories is significantly higher than the state average for all hospitals. Thus, those whose last admission was at Holy Cross last year, and died within 30 days of admission had significantly more life-threatening problems when they were admitted.

The HCFA model does not directly factor severity of illness into their findings. And, the mortality rate data is based on "primary diagnosis at time of the last admission," not the actual cause of death. Patients in critical condition from accidents, and patients who are terminally ill are included in a given category as well as patients requiring minimal intervention. The data also do not show the source of the patients. Obviously, those admitted through the Emergency Department are generally high risk candidates compared to other patients. [4]

The data also may be misleading if there are only a small number of cases in a particular category. The smaller the number, the more likely the number is subject to misinterpretation. In the Holy Cross data, there are less than 20 persons included in the sample of four different DRGs.

The HCFA data for Holy Cross Hospital reveals that in all DRGs (Diagnostic Related Groups, or categories of illness/disease) we fall within the predicted

range. Yet when compared with other hospitals within the state, Holy Cross data show that the average age of Medicare patients who expired within a number of the DRG categories is significantly higher at Holy Cross than other hospitals. Almost half of our admissions are elderly (average age 79), and the majority of these had two or more co-morbidities. Because of these factors (severity of illness, co-morbidities, age) in one category, 25% expired within the first day of admission.

Of cases reviewed by hospital staff, nearly 75% has poor prognoses at the time of admission, and several had "no code" requests (they requested that not extraordinary efforts be made to resuscitate).

The release of HCFA mortality rate data can be confusing to the general public in another way: that this is mortality rate data for all patients, when in fact it is only for Medicare patients, those over 65 years of age. In the Holy Cross data, nearly one of every six Medicare patients who expired was over the age of 85.

Finally, taken alone the data do not allow for an interpretation concerning why a patient died or whether the death could have been avoided. Only an examination of the patient's medical record could identify the particular circumstances.

Not included in currently available data are quality determinants not addressed by HCFA: complication rates, readmission rates, and whether there is continuous quality monitoring at the various hospitals. At the patient level, quality is often defined as a "sense of being cared for." Holy Cross Hospital features an ongoing Quality Assurance Committee which monthly reviews all pertinent data, recommends programs and strategies, and oversees the effecting of numerous quality assurance activities.

A 42-year history as a caring community hospital which provides health care services to all persons regardless of age, sex, creed, religion or ability to pay, Holy Cross will continue to serve its patients with quality, concern and compassion as espoused by the Sisters of St. Francis who sponsor Holy Cross and four other hospitals in the United States.

Medicare Provider Number: 23-0065

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3. Glasscock, G., Lloyd Nolan Hospital and Health Centers, Statement issued to news media, March 12, 1986.

4. Fottler, M.D., Ph.D., "Public Release of Hospital Specific Death Rates," Hospital & Health Services Administration, August 1987, p..351.

HURLEY MEDICAL CENTER ONE HURLEY PLAZA, FLINT, MICHIGAN 48502 PHONE (313) 257-9000

HURLEY MEDICAL CENTER

Comments on HCFA Mortality Data

It has been established that hospitals treating a large number of patients with terminal or extremely acute conditions, who tend to be admitted just prior to death, will have higher than average crude mortality rates. Although the HCFA model does not include a measure of severity, i.e., how ill a patient was at the time of admission to the hospital, HCFA's "range of predicted mortality rates" have been adjusted for six patient characteristics available from paid claims data. Using this approach, HCFA predicted that hospitals admitting Medicare patients with a greater propensity for dying, would have higher predicted mortality rates than the average hospital.

Hurley Medical Center is a 523 bed acute care referral hospital serving Flint, Michigan, and a three county area in mid-Michigan. The institution operates a number of specialized programs for the treatment of patients with terminal or extremely acute conditions including cancer, acute kidney disease, trauma, and severe burns, as well as a regional unit for the treatment of head and neck injuries. Given our patient population and the specialized services provided by the institution, it is significant to note that Hurley Medical Center's actual crude mortality rates fell within HCFA's "range of predicted mortality rates" overall and for all 16 diagnostic categories.

Hurley Medical Center is committed to promoting a comprehensive Quality Assurance Program which is designed to identify opportunities to improve the quality of care delivered at our institution. As a part of this program, mortality review is routinely conducted for patients on all clinical services. Hurley physicians also concurrently evaluate the quality of care rendered to patients through the institution's Utilization Review Program.

IONIA COUNTY
MEMORIAL HOSPITAL
479 LaFayette Street, P.O. Box 1001, Ionia, Michigan 48846 phone (616) 527-4200

HCFA/EXEC.SEC.
1987 OCT 30 AM 10: 25

October 26, 1987

Health Care Financing Administration
Administrator
Washington, D.C. 20201

Subject: Medicare Mortality Response

Dear Dr. Roper:

In response to the data released to Ionia County Memorial Hospital, we wish to make the following comments as it relates to our facility #230027.

Crude data as presented without detailed patient information is very unpredictable. The area served by this facility does not have a skilled nursing home which administers pain control medications, nor does the volunteer Hospice have the capability of providing continuous professional nursing care, enabling the provision of pain control at a setting less than the acute care, which we provide.

The crude data to be released provides a starting point for facilities to the view and evaluate quality and types of care provided.

The review of the cases presented indicated no deaths as a result of inadequate or low quality care.

Ten of the categories presented were in the high risk area and six in the low risk. In the high risk area, 39 of the 45 deaths were accounted for and six in the low risk. In order to determine quality from statistics, the records must be reviewed as for appropriate care. Availability of appropriate facilities such as swing beds and skilled nursing beds are also considerations.

Sincerely,

Martin E. Anderson
Administrator

MEA/jis

IRON COUNTY GENERAL HOSPITAL
"Your Partner In Family Health"
1400 WEST ICE LAKE ROAD • IRON RIVER, MICHIGAN 49935
906 265-6121

COMMENTS ON THE HCFA MORTALITY DATA

The data used by HCFA indicate that a total of 41 Medicare patients admitted to Iron County General Hospital died within 30 days of admission. Of these, 27 died while still a patient of the hospital, while 14 died after discharge. Our own records indicate that a total of 516 Medicare admissions occurred in 1986.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in HCFA's analysis.

In none of the diagnostic categories, does the Hospital's actual mortality rate fall outside of the range of predicted mortality rate. The number of categories in which the actual mortality rate is in the high range of the predicted mortality rate is one. Several factors may account for this fact.

Of the patients who died of severe acute heart disease during that period, 77% (7 out of 9) of these patients died as a result of an acute heart arrest. or entered the hospital with acute heart attack. The average age for those patients with acute cardiac event was 80 years.

The hospital medical staff reviewed on a case to case basis, the medical record of all Medicare patients, who are listed as a mortality in this study. Each case was reviewed for appropriateness of care as well as obtaining statistical data to help us evaluate our perfromance in the care of these patients.

Forty-eight percent of all the admissions to Iron County General Hospital during the time of the study were Medicare beneficiaries. It was also noted by the Medical Staff that the average age of the patients who died either in the Hospital or within 30 days of discharge from the Hospital, was 80. Review of the data revealed that 14 out of the 41 mortalities died outside of the Hospital within 30 days of their discharge. 11 out of 41 patients (26%) died while at a nursing home facility. Two out of 41 (5%) died while at home, and one died in another hospital. It was also noted that the average length of stay prior to discharge from the hospital to the nursing home or to home of these patients was 9.3 days, while the overall average length of stay for Medicare beneficiaries was 6.4 days.

Further review of the records showed that 25 out of the 41 patients who were hospitalized and eventually died, had orders on their chart indicating that agreement between the attending physician and the family, that no heroic efforts were to be made to prolong that patient's life. This represents 61% of the total.

Eighteen of the patients who came to the Hospital and eventually died became acutely ill while at a nursing home facility and had been transferred from a nursing home facility for acute care.



JACKSON OSTEOPATHIC HOSPITAL
110 North Elm Avenue Jackson, Michigan 49202 (517) 787-1440

October 26, 1987

Medicaid Provider Number: 230184

To Whom It May Concern:

Thank you for your September 21, 1987 mortality release data. We appreciate having an opportunity to review and comment prior to the December, 1987 news release. We are very much interested in enhancing our quality assurance program.

We would like to bring to your attention that the HCFA data failed to reflect or take into account the following: patient's general health status, stage of patient's illness, patient's psychological condition, patient's family support, case mix of hospital, and size of hospital (we are a 75 bed acute care facility). In addition to these facts, the HCFA model has not been validated to test for accuracy.

Your data takes into account those patients that expired after being discharged from our hospital. For example, seven of the 30 cases sited expired after leaving Jackson Osteopathic Hospital. The cases fall into the following diagnostic categories: 1-CE, 1-GU, 1-HL, 1-PN, 3-UN. These seven deaths had an average age of 79 years with a range of 67 years to 97 years of age. Four of these seven, or 57%, actually expired in extended care facilities. The final diagnosis does not necessarily reflect the cause of death on these patients. Patient's deaths were caused by diagnoses unrelated to their last admission.

We were within the range of predicted mortality rates on all diagnostic categories. However, there are three diagnostic categories that we would like to discuss in great detail:

Diagnostic category SE--Sepsis 50%: In this category our total Medicare discharges for 1986 were four patients, two of which expired. Both patients were 83 years old with multiple co-morbidities.

Diagnostic Category CE--Cerebrovascular accidents 43%: In this category our total Medicare discharges for 1986 were seven patients, two of which expired. The average age of patients was 78 years old with multiple co-morbidities.

Diagnostic category HS--Acute heart disease 31%: In this category our total Medicare discharges for 1986 were 16 patients, six of which expired. The average age of patients in this diagnostic category was 73 years. All cases had co-morbid conditions. Please note that the average length of stay for this category was 2.3 days.

In summary, quality of care is not indicated by the mortality rate of a hospital. Death is a natural part of the life process and we at Jackson Osteopathic Hospital are constantly upgrading our Quality Assurance Program to provide the best possible care.

Sincerely,

Lee F. Sayre
Administrator

LFS:skb

LakeView
COMMUNITY HOSPITAL

P.O. Box 209 • 408 Hazen Street • Paw Paw, Michigan 49079-0209 • 616 657-3141

October 26, 1987

William L. Roper, MD
Department of Health & Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, MD 21207

Dear Dr. Roper:

Lake View Community Hospital has extensively reviewed the statistics released by Health Care Financing Administration pertaining to institutional mortality rates. We have used an interdisciplinary approach in carefully scrutinizing the charts of each of the patients in question and concluded that our actual mortality rate is 9%, which is at the low end of the range of predicted mortality rates (9% to 18%). Upon reviewing each of the diagnostic categories individually, we have concluded that we are at the lower end of each individual category as well with one exception.

In the category severe acute heart disease, we find that our mortality rate is at what we estimate to be the median for the range in question. Although still well within the predicted range, we feel there are several reasons that may have contributed to our percentage in this particular category. First, we feel part of the reason for the increased mortality rate in this category is due to the relatively small sample size (total cases 11 of 400). In addition, the average age of mortality in this category is 83 which would increase the expectation of death due to an acute cardiac epidsode. Finally, of the five deaths in this category, three patients had indicated that they did not wish extraordinary means to be used on their behalf. This may have further contributed to the higher rate in this category.

In some instances, the Health Care Financing Administration's use of the primary diagnosis to place the case in a diagnostic category for cause of death is misleading. For example: in one case the principal diagnosis was the reason for hospitalization, but the actual cause of death was the underlying comorbid condition and this is not reflected in the category in which it was listed.

Overall, we believe these statistics are continuing evidence that Lake View Community Hospital is successfully striving to improve the quality of care given to every patient. These statistics and the cases they represent will be used in our ongoing quality assurance program which includes mortality review, in an effort to ensure that we are doing everything we can to improve the quality of life for each and every patient we encounter.

Sincerely,

James R. Phillippe

James R. Phillippe
Administrator
Medicare Provider Number: 23-0172

LakeView
COMMUNITY HOSPITAL

P.O. Box 209 • 408 Hazen Street • Paw Paw, Michigan 49079-0209 • 616 657-3141

October 26, 1987

William L. Roper, MD
Department of Health & Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, MD 21207

Dear Dr. Roper:

Medical record and nursing personnel have reviewed the medical records on every patient listed on the HCFA mortality statistics. Upon reviewing this information, we find the following corrections to be in order.

1. Incorrect patient age: [redacted], age 74, correct age is 75.

2. Patient transferred to another acute hospital setting and should not be on our hospital listing: [redacted], admission date 10-21-86, discharge date 10-21-86. Patient was transferred to Borgess Medical Center, Kalamazoo, MI and expired in their facility on 10-30-86.

3. Incorrect patient date of death, and we billed the diagnosis code incorrectly: [redacted], the correct date of death is 2-18-86. We incorrectly billed diagnosis code 415.1, and it should have been code 486.

4. Incorrect patient age, and we billed the diagnosis code incorrectly: [redacted], correct age is 81, we incorrectly billed the diagnosis code 518.3, and the correct code is 518.4.

5. We billed diagnosis code incorrectly: [redacted] our billing department incorrectly sequenced the diagnosis codes. This patient is under the diagnostic category UN and should be under the diagnostic category Cerebrovascular Accidents, CE.

We anticipate the corrections will be made in your statistical information and our actual mortality rates adjusted accordingly.

Sincerely

James R. Phillippe

James R. Phillippe
Administrator
Medicare Provider Number: 23-0172

MI 102.2

Lansing General
Hospital

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington D.C. 20201

Dear Dr. Roper:

Thank you for the opportunity to respond to the mortality rates provided to Lansing General Hospital (LGH) from the Health Care Financing Administration (HCFA).

While all of LGH's actual mortality rates fell within the range of HCFA's statistical model, we have begun evaluating LGH's statistics and believe that the following initial findings will be helpful for the public's understanding of the study and the limits of its use:

- Only the elderly patient population is included in this study. Initial review of this information reveals that of this elderly patient population, 70 of the patients in LGH's statistics were age 80 or above; 46% of the patients listed. Further, 20 of those 70 patients were age 90 or above; 13% of the patients listed. We are uncertain how this model takes into account the 65 year old population group versus the 80 or 90 age population, which is important since the "younger" elderly population is generally more healthy than the "older" population and may not have as many multiple system disease variables present. We are concerned that this difference would cause the reader of the data to be misled.

- Patients whose death occurred within 30 days of hospitalization, but outside the hospital, are included in the study. Although the use of a 30 day post-admission mortality rate may reduce apparent variations in mortality due to differences in length of stay, it can also result in the attribution to LGH of deaths unrelated to the condition being treated at the time of discharge or of deaths that resulted from management of the patient at home or in a post-acute care facility.

- The severity-of-illness factor has not been considered in HCFA's study. This factor alone has enormous

Lansing General
Hospital, Osteopathic
2727 S Pennsylvania
Lansing, MI 48910-3490
(517)372-8220

bearing on the outcome of any illness. For example, in the "severe acute heart disease" category, an evaluation of these 22 patients indicate that 5 patients experienced a cardiac arrest outside LGH. Multiple factors could have occurred pre-hospitalization which might have adversely affected the patient's outcome, including whether the patient was alone, how soon CPR was started, and when professional aid arrived. Additionally, all "cancers" are grouped together. This grouping could be misleading since some cancers are more rapidly debilitating and disastrous, while other cancers have a relatively small impact on life expectancy.

- Consideration of chronic underlying or comorbid conditions is narrowly defined by only 8 categories. Thus, all conditions outside the 8 categories have not been considered.

- The study listing "cases" - "all causes" does not reflect the total number of Medicare admissions to LGH, but only the last patient admission for 1986. Patient "cases" identified by HCFA for LGH are 1,205; however, the total number of Medicare admissions in 1986 was 2,605. Based on the total number of 1986 Medicare admissions, LGH's mortality rate would drop from 13% to 7%.

- The elderly patient population electing not to receive life sustaining treatment has not been identified in the statistics; for example, those patients electing not to receive chemotherapy, resuscitation, medication, etc.

- The statistical model used by HCFA is an attempt to predict the risk of dying or mortality rates for different types of patients. The problem with these types of statistical models have been sighted in (The New England Journal of Medicine, Vol. 317: 679-686, [September 10, 1987]; Annals of Internal Medicine, Vol. 104: 410-418, [March, 1986]; The New England Journal of Medicine, Vol. 313: 20-24, [July 4, 1985]).

In spite of the above limitations, this information is a useful starting point for in-depth analysis. LGH's quality assurance and utilization review departments can integrate this data into their existing thorough screens and present findings to the appropriate physician committees for review.

We applaud and support an activity such as this designed to educate the public about health care and health care institutions. Also important is for the public to understand that this study does not intend to judge the quality of care administered at any hospital.

Sincerely,

Robert E. Miller
President

REM/cm

Lapeer General Hospital •

1375 North Main Street • Lapeer, Michigan 48446 • (313) 664-8511

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir,

Attached are brief comments relating to the raw data regarding Lapeer General Hospital's (Provider # 230193) 1986 mortalities. Attachment I includes corrections to the data as validated upon review of our hospital records.

While our internal analysis of the statistics continues, your consideration of those initial comments would be greatly appreciated.

Sincerely,

Thomas H. Keesling
President/CEO

Enclosure:

THK/ml

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	6	2	6	2
CE -- Cerebrovascular Accidents	7	1	7	1
GC -- Gastrointestinal Catastrophes	3	0	3	0
GI -- Gastrointestinal Disease	6	1	5	1
GU -- Urologic Disease	1	0	1	0
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	2	2	2	2
HM -- Severe Chronic Heart Disease	9	8	11	6
HS -- Severe Acute Heart Disease	30	2	31	1
ME -- Metabolic/Electrolyte Disturbances	5	1	5	1
OP -- Orthopedic Disorders	2	0	2	0
PN -- Pulmonary Disease	9	5	11	4
RN -- Renal Disease	3	0	3	0
SE -- Sepsis	4	4	6	2
TR -- Severe Trauma	3	1	3	1
EYOR -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	20	4	21	3
Total -- All Categories	110	31	117	24

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

LAPEER GENERAL HOSPITAL

Lapeer, Michigan
Comments on the H.C.F.A. Mortality Data
Provider # 230193

DATA VERIFICATION

The data used by H.C.F.A. indicate that a total of 141 of the 1073 Medicare patients admitted to L.G.H. died within 30 days of admission. Of those, 110 died while still a patient of the hospital and 31 died after discharge. Our records indicate that L.G.H. had 1880 Medicare admissions in 1986. We have verified 177 Medicare inpatient deaths from the H.C.F.A. data. The discrepency in admissions reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients reported by H.C.F.A. as being treated on their last admission to L.G.H., is correct. Our records also indicate that of the 141 Medicare patients who died within 30 days of admission, 24 were discharged. It is impossible to determine the status of these 24 as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to H.C.F.A in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

INTERPRETIVE REMARKS

In only 1 of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. In that one category, Lapeer General Hospital had fewer deaths than predicted by H.C.F.A.

UNIQUE SERVICES RESULTING IN HIGHER THAN AVERAGE MORTALITY

L.G.H.'s unique services is its position as the only hospital in our area. We are responsible for providing a continuum of care from birth to death for all, regardless of prognosis.

RESULTS OF PRELIMINARY MEDICARE RECORD REVIEW

A majority of the reported Medicare deaths were of the elderly population (80 years or older), with multiple comorbidities. Lapeer General Hospital has standard protocol that is followed to acknowledge a patient's/or family's request for no CPR. In fact, 39 of the reported deaths had exercised their right to have no heroics instituted at the time of death.

LEELANAU MEMORIAL HOSPITAL

(616) 386-5101 • P.O. BOX 217 • NORTHPORT, MICHIGAN 49670

JAMES PACKARD
ADMINISTRATOR

October 14, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Subject: Review of Mortality Information

Thank you for the opportunity to review the mortality information you intend to release to the public this December. I understand that the following comments from us regarding this information will accompany its publication:

-Leelanau Memorial Hospital is a 33 bed acute care hospital with an attached 61 bed Long Term Care unit. It is located in a rural setting with a higher than average population over the age of 65. Very often admissions to the hospital are from the community or LTCU for supportive care at the end of long standing multiple illnesses. This may inflate LMH's mortality data in comparison to other health care providers.

-The information listed by HCFA has been partially verified by LMH. That is, the deaths listed did occur. One discrepancy is noted regarding the circumstance of death for patient [redacted] listed with a diagnosis of Sepsis. This particular patient was discharged from the hospital and subsequently died in our Long Term Care Unit from a different diagnosis and cause of death other then Sepsis.

-The use of a hospital's crude death rate by consumers of health care to determine where to go for services is of questionable value. These rates are a factor to be considered with many other variables. Leelanau Memorial Hospital has an ongoing quality assurance program that considers many factors. A review of every death that occurs in the hospital has been a long standing practice along with a review of the patient's condition at the time of admission, the stage of their illness, the patient's attitude, and the degree of family support available.

In conclusion, perhaps there could be a group formed by HCFA, the Joint Commission, the American Hospital Association, the American Medical Association, and other interested groups to develop a definition of quality indicators for consumers.

Sincerely,

James Packard

James Packard
Administrator

MARQUETTE GENERAL HOSPITAL
REGIONAL MEDICAL CENTER
ROBERT C. NELDBERG, EXECUTIVE DIRECTOR

October 23, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Health Care Financing Administration:

As results of the report compiled by HCFA verify, "quality is a key word in describing the level of health care provided at Marquette General Hospital." Using the report to help gauge the effectiveness of extensive quality assurance safeguards built into the MGH health care system, the report shows Marquette General specific area mortality rates to be within, and in most cases below, the median range of HCFA predicted rates. That fact has more significance than it might appear at first glance.

As a federally designated regional referral medical facility, Marquette General Hospital fulfills a crucial responsibility as the leader in providing acute medical care in Upper Michigan. Almost 70% of patients treated at MGH live in Upper Michigan areas outside of Marquette. Because of MGH's responsibility as a regional referral center, the Hospital accommodates the most serious and complex medical cases that arise in the region. The depth of acute care of MGH is such than when awarding the Hospital a Certificate of Need recently to provide the revoluntionary Lithotripsy kidney stone treatment service, the Michigan Department of Public Health noted the vital role Marquette General Hospital plays by stating "Marquette General Hospital is the primary source, and in many instances the sole source, of specialized services in its health service area, including neonatal, intensive care, cardiac catheterization, open heart surgery, radiation therapy, rehabilitation, psychiatric care, hemodialysis, Magnetic Resonance Imaging diagnosing and CT Scanning."

Quality assurance takes a top priority at MGH. It is interwoven into the fabric of every service provided, not ending with the aggressive techniques of the experts within the MGH Quality Assurance Department. Quality Assurance can be found in the depths of behind the scenes

activities of Marquette General, from the Physician Tumor Board, which painstakingly reviews cancer cases, to social workers striving to meet the less obvious needs of patients and their family members.

This unified approach to quality acts as the cement necessary to successfully operate a medical center with the scope of Marquette General Hospital. The Health Care Financing Administration report should serve to highlight the MGH effort.

Expanded specialty services provided by Marquette General to the Upper Michigan region have bridged the gap that once existed in rural medical care. The HCFA report demonstrates that the quality of care provided by Marquette General Hospital has more than kept pace with the quantity of medical services available.

Sincerely,

Robert C. Neldberg

Robert C. Neldberg
Executive Director

RCN:mlp

MARQUETTE GENERAL HOSPITAL
REGIONAL MEDICAL CENTER
ROBERT C. NELDBERG, EXECUTIVE DIRECTOR

ATTENTION: [redacted]

October 28, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Health Care Financing Administration:

The following is an addendum to Marquette General Hospital's comments dated October 23, 1987 regarding the Medicare Mortality Report.

In addition to our October 23 comments, further investigation has identified some discrepancies in the report regarding deaths attributable to Urologic Disease (GU).

Three of the five deaths reported were not Urologic in nature, but rather attributable to the cancer that the patient already had, therefore they should have been listed under the cancer (CA) category.

The department has received letters from two physicians specifically identifying these problems.

In addition, other categorical discrepancies were found with regard to discharge dates and transmission of codes. These specific cases were:

Patient ID Number	Listed Date of Discharge	Actual Date of Discharge	Listed Date of Death	Actual Date of Death
[redacted]	10-10-86	10-09-86	10-10-86	10-09-86
	02-16-86	03-03-86		
	12-07-86	12-06-86	12-07-86	12-06-86
	07-20-86	07-21-86		
	11-13-86	12-03-86		
	07-31-86	08-01-86		
	11-26-86	11-25-86	11-26-86	11-25-86

Thank you for your consideration.

Sincerely,

William R. Nemacheck
Assistant Administrator

WRN:amp

MGH
McLAREN GENERAL HOSPITAL, INC.

Gary R. Peterson
President

October 27, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

In response to the Health Care Financing Administration (HCFA) mortality data release for McLaren General Hospital, Flint, Michigan, we believe the following information is pertinent in understanding and interpreting the McLaren statistics.

- The monitoring of mortality statistics has been a continual, formal process at McLaren since 1955. The Quality Assurance function is performed by each clinical department as an ongoing, comprehensive, integrated approach to monitoring for appropriate care. This program is based on identified criteria established by physicians; thus is a true peer review mechanism.

- The physicians at McLaren treat patients with a higher level of acuity due to the special services offered at this hospital. McLaren is a Regional Rehabilitation Center; therefore we treat a large number of stroke victims. We also offer a comprehensive program for patients with closed head injuries as part of our rehabilitation services. McLaren is a Level III Cardiac Center (e.g. emergency angioplasty, open heart surgery, Electrophysiology Studies, implantable defibrillator) and we also offer comprehensive surgical services.

- Other data sources have revealed that the incidences of co-morbidity among McLaren patients are significantly higher than the state average for Michigan.

- McLaren maintains the only allopathic surgery residency and the only orthopaedic residency programs in Flint. As a result, multiple trauma referrals specific to surgical and orthopaedic cases are directed to McLaren.

MGH
McLAREN GENERAL HOSPITAL, INC

We feel strongly that the use of mortality rates as a measure of quality is limited due to the fact that they do not consider severity of illness, nor do they indicate if the patient was transferred from another facility, if the patient had a terminal illness and the patient's general health status. Further, these rates do not take into account the patient's condition at the time of admission.

We are utilizing these rates, as intended, to focus on our quality assurance program.

Sincerely,

Gary R. Peterson
President

McPherson Community Health Center

PETER J. SCHONFELD
President & Chief Executive Officer

620 BYRON ROAD, HOWELL, MICHIGAN 48843
Dial 517-546-1410, Ext. 205

October 21, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
P. O. Box 26684
Baltimore, Maryland 21207

RE: RESPONSE TO HCFA MORTALITY DATA - McPHERSON COMMUNITY HEALTH CENTER

Dear Dr. Roper:

Attached are corrections to the HCFA Mortality Data Report we received from you. According to the HCFA report, our results were all within the predicted acceptable ranges. However, our records indicate that 1321 Medicare patients were discharged from the hospital during 1986, compared to the 805 cases reported by HCFA. Our records also indicate that of the 1321 cases, 66 Medicare patients died at the hospital within 30 days of their admission, compared to 62 deaths in 805 cases reported by HCFA. Verification of the 31 deaths reported by HCFA as having occurred after discharge is impossible because this information is not available in our medical records.

Several factors, including our inability to replicate the data, limit its usefulness in accurately assessing the quality of care at hospitals. Of primary concern is that the data has not been adjusted to reflect the varying degrees of severity of illness that would be expected within a particular diagnostic category nor is it adjusted by age, hospice services, specialty transfer arrangements, or other important factors.

Of equal concern to small hospitals is that the reduced size of the data base can have a significant impact on the appearance of the data, either good or bad. Of the sixteen specific diagnostic categories, there were only four into which 50 or more patients were grouped. Statistically, this gives a disproportionate percentage to each death and makes it very difficult to draw valid conclusions about the quality of care provided. This is especially misleading if hospitals are inappropriately ranked.

Finally, an assumption has been made that mortality rates equal to or exceeding some predetermined range indicate substandard quality of care. There is little evidence to support this hypothesis. In fact, the Executive Director of the Michigan Peer Review Organization has gone on record stating that, in their experience, mortality statistics are not good indicators for quality of care. Many other influences, such as severity of illness and socio-economic factors must be considered in addition to the outcome of a particular episode of hospital care.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Despite the limitations of the data, we acknowledge their usefulness as one indicator of the quality of care provided at MCHC. We further acknowledge that many variables must be monitored on an ongoing basis to assess and continually improve the quality of that care. We refer to this process as our Quality Assurance Program and are currently using the HCFA data as an additional monitoring activity within that Program.

Thank you for the opportunity to comment.

Sincerely yours,

Peter J. Schonfeld
President & CEO

PJS/pk
atts.
cc: M. Jaquette
Joint Conference

MC MECOSTA COUNTY
GH GENERAL HOSPITAL

405 Winter Avenue
Big Rapids, Michigan 49307-2099
Telephone (616) 796-8691

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

This letter is written in response to the selected mortality data received by this hospital and will address areas of concern with the data and its interpretation.

Initially, our review discovered a number of cases omitted from the patient base and some error in the dates of discharge and date of death. The corrections and additions are listed on the attached sheet and, when incorporated in the calculations, will change the mortality rates in the affected diagnostic categories for this hospital.

Secondly, our concerns focus on the public's likely association of mortality rates with quality of care and their minimal interest in understanding the limitations of such a methodology. The reliability and validity of the model developed have not been established and using this data to inform the public regarding a hospital's performance seems premature.

Thank you for the opportunity to correct the data base and to make these comments.

Sincerely,

Norman G. Allan

Norman G. Allan
Interim Administrator

NGA/cs

Encl.

Mecosta County General Hospital
Big Rapids, Michigan

Pt. I.D.	Surname	Diagnostic Category	Age	Sex	Date of Admin.	Date of Dischg.	Date of Death	Principal Diagnosis
Corrections								
[redacted]		GC	084	M	04/07/86	04/14/86	04/14/86	5789
		NS	084	M	07/24/86	07/25/86	07/25/87	4101
		PN	076	M	10/14/86	10/18/86	10/18/86	4151
Additions								
[redacted]		GI	091	M	12/22/86	12/22/86	12/22/86	56983
		PN	087	M	07/14/86	07/24/86	07/24/86	5070
		PN	092	F	06/12/86	06/19/86	06/19/86	486
		PN	066	M	07/03/86	07/10/86	07/10/86	5184
		GI	084	M	08/21/86	09/08/86	09/08/86	56081
		UN	074	F	10/30/86	11/30/86	11/30/86	7071

THE MEMORIAL HOSPITAL

826 WEST KING STREET • OWOSSO, MICHIGAN 48867

HCFA/EXEC.SEC.
'87 OCT 28 PM 3:14

1986 MORTALITY DATA RESPONSE

THE MEMORIAL HOSPITAL - OWOSSO, MICHIGAN

MEDICARE PROVIDER NUMBER: 230121

The data used by HCFA indicates that a total of 1,049 Medicare patients were admitted to The Memorial Hospital. Of these, 134 died within 30 days of admission. Of these, 115 died while still a patient of the hospital. HCFA statistics show 23 died after discharge, when in fact our records indicate that 4 of those patients died in the hospital, which would make the total of deaths after discharge 19. Of the 19 who expired after discharge, death was the expected outcome in over half of these cases.

Our own records indicate that 1,733 Medicare admissions occurred in 1986. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries.

It is impossible to determine the percentage of the patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

PHONE (517) 723-5211

It should be noted that The Memorial Hospital is the only acute care facility in Shiawassee County. We also have a hospital based Hospice program and Home Health Care program.

Memorial Medical Center
OF WEST MICHIGAN
One Atkinson Drive • Ludington, MI 49431 • (616) 843-2591

October 22, 1987

HCFA/OFC/SEC.
88 OCT 28 PM 3:17

MEMORIAL MEDICAL CENTER OF WEST MICHIGAN

MEDICARE PROVIDER NUMBER 230110

There were four inadequacies found on HCFA's mortality list for Memorial Medical Center of West Michigan (Medicare Provider Number 230110). Attachment A states the specific errors and the appropriate corrections.

Memorial Medical Center of West Michigan is a 95 bed acute care hospital located approximately sixty (60) miles from the nearest major hospital.

During Calendar Year 1986, Memorial Medical Center had a total of 17,151 inpatient days, with 9,305 of these inpatient days being Medicare (54.25 percent).

The overall Mortality Rate at Memorial Medical Center for Calendar Year 1986 is 2.5 percent. With a total of 73 inhouse Medicare deaths, 32 were requested to be a "No Code/No Signal" by the attending physician and patient families.

There was a total of 15 Medicare deaths outside the hospital occurring within 30 days following discharge. These records were reviewed and the discharges were found to be totally appropriate.

The Quality Assurance Committee of Memorial Medical Center reviews 100 percent of deaths occurring inhouse. The medical records of expired patients are forwarded to the Quality Assurance Committee each month.

Memorial Medical Center
OF WEST MICHIGAN
One Atkinson Drive • Ludington, MI 49431 • (616) 843-2591

The HCFA Mortality Study will also be forwarded to the Quality Assurance Committee for review and discussion. It may be utilized as a self-evaluation tool.

Memorial Medical Center
OF WEST MICHIGAN
One Atkinson Drive • Ludington, MI 49431 • (616) 843-2591

HCFA MORTALITY STUDY RESPONSE

ATTACHMENT A

PATIENT ID NUMBER	DIAGNOSTIC CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH	PRINCIPAL DIAGNOSIS
[redacted]	CE	*90	F	02/08/86	02/09/86	02/09/86	436
[redacted]	CE	*94	F	01/03/86	01/16/86	01/20/86	436
[redacted]	HM	*57	M	12/22/86	12/27/86	12/27/86	428.0
[redacted]	PN	82	F	*02/13/86	02/22/86	02/22/86	482.8

*Indicates the appropriate correction.

Mercy Hospital
Caring People

1500 E. Sherman Blvd., P.O. Box 358
Muskegon, Michigan 49443
(616) 739-3901
FAX (616) 733-0957

Office of the President
Alan J. Reberg

October 26, 1987

William L. Roper
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Mr. Roper:

I appreciate the opportunity to review the Health Care Financing Administration (HCFA) mortality rates recently provided to hospitals. Response to the HCFA study will first address the area of methodology and then summarize the analysis of mortality rates within specific diagnostic categories. Providing quality care is paramount to the Board, medical staff, management and health care providers at Mercy Hospital, Muskegon, MI. Mortality data cannot be translated directly into statements of high quality or low quality. It cannot serve by itself as an accurate measure of hospital or medical performance in the provision of patient care. Mortality data is very useful in identifying areas for focused review. Comparison of predicted and actual mortality rates may suggest areas to review to determine if a quality problem exists or if the patients have complex illnesses, or if some other variable not considered in the HCFA study may influence the result.

Quality of care can only be determined through the peer review process and mortality rates which are higher or lower than predicted ranges are investigated in a prompt and thorough manner as a part of this ongoing process. When monitoring and evaluation of care identifies a problem, corrective action is instituted.

General Comments:

The validity and reliability of the HCFA model and its ability to detect differences in quality of care among hospitals has never been evaluated. The model assumes that each hospital's patients are "average." Though some adjustments are made, the model does not adequately consider other crucial patient characteristics, most significantly, severity of illness at time of admission. No consideration is given to treatment received at home prior to admission, presence of a terminal illness, transfer to the hospital from a nursing home, or the patient's psychological state or general health status.

These design flaws severely limit conclusions that may be drawn from the study. The HCFA data reflects mortality rates for Medicare patients only, including in-hospital deaths and those occurring outside the hospital within 30 days of the last inpatient admission. The American Hospital Association and the Joint Commission on Accreditation of Hospitals are developing methods to evaluate hospital quality that rely on other measures. The results of their efforts are anticipated to be more complete and somewhat more sensitive to these other significant factors.

Mercy Hospital provides specialized care for complex cardiovascular problems, as well as acute and chronic renal failure. The case mix index for Medicare patients at Mercy Hospital is 1.3225 in both 1985 and 1986. The case mix index in acute care facilities in the referral area ranges from 1.0159 to 1.1211. Admissions through the Emergency Department, referrals from other acute care facilities, and referrals from skilled nursing facilities accounted for 42% of all admissions to Mercy Hospital in 1986.

Severe Chronic Heart Disease:

Analysis of the HCFA mortality data has identified several discrepancies in discharge status, date of death, date of last hospital admission and patient age. HCFA data indicates a 31% actual mortality rate for admissions with Severe Chronic Heart Disease (predicted range 13-30%). Hospital clerical errors added two unrelated cases to this category. The corrected rate is then 29.6% of 98 admissions. In our hospital, patients in this category are primarily end stage cardiovascular disease who had already received maximal medical therapy and were not candidates for surgical intervention. 65.5% of these patients were admitted through the Emergency Department, indicating the severity and urgency of their condition. Specialists directly or indirectly provided care in 90% of these cases. All patients met discharge criteria; 62.5% received continued health care through skilled nursing facilities or home health care agencies. Follow-up visits, medications and scheduled lab work was documented for all.

Low Risk Heart Disease:

HCFA data described a 5% mortality rate for patients in the Low Risk Heart Disease category (predicted range 3-9%). By our review, deaths in this category were shown to be acute, severe cardiovascular disease. 73% of these patients were referred to Mercy Hospital for diagnosis and management of complex cardiovascular problems, 27% were admitted through the Emergency Department. The case mix index for this subset of patients was 3.1932 compared to 1.3225 hospital wide. Specialists provided direct management for all patients in this category. These findings belie the category "low risk."

Gynecologic Disease:

HCFA noted one patient death in the gynecological category of 11 admissions. A sample of one does not yield results that can be generalized and the statistical validity is in question.

Live Discharges:

Discharge destination was reviewed for all patients who, according to HCFA data, died within 30 days of admission. More than two-thirds were discharged to skilled nursing facilities or home health care, indicating their needs for follow-up care were anticipated and met.

HCFA mortality data will receive further review as part of the established quality assurance program in medical staff committees.

Sincerely,

Alan J. Reberg
President

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Mercy Hospital
2601 Electric Avenue · Port Huron, Michigan 48061-5018 (313)985-1500

October 22, 1987

William Roper, M.D.
Administrator
Department of Health and Human Services
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper,

Although mortality rates for Mercy Hospital are within the predicted ranges, we feel it important to comment on the programs and characteristics of Mercy Hospital that impact the data.

Patient mortalities are reviewed by each medical department as a part of Mercy Hospital's ongoing Quality Assurance program, so the first step that we took to review the HCFA mortality list was to compare it with our own listing. All of the HFCA mortalities appeared on our list with the exception of those that died after discharge. Of those patients that died after discharge from Mercy Hospital, half (52%) were transferred to a nursing home.

As you know, some hospitals treat sicker patients. Mercy Hospital is a referral center for Oncology, Nephrology, Cardiology and Vascular Surgery and as such, we serve patients from a large geographic area (Thumb Area). Patients that are too sick to be treated at smaller, rural hospitals are referred to us for care. Our analysis of the data showed that almost 2/3 (62.4%) of the Medicare mortalities were admitted to the hospital as emergencies or from a nursing home.

Mercy Hospital has a specialized Oncology Program that specializes in the treatment of the terminally ill. Eighty-eight percent of the cancer patients who died were "no code" patients, that is, the patient and/or family had requested that resuscitative efforts <u>not</u> be instituted and that the patient be permitted to die.

Our renal patients are cared for on an ambulatory basis under the auspices of the St. Clair Renal Center. Only the sickest of renal patients are admitted and our analysis showed that the two renal patients who died had also requested "no code" status.

No code status was analyzed in other selected categories and ranged from 60% to 85%. These findings suggest to us that a large proportion of our Medicare deaths occurred among patients who were in the terminal stages of their illness.

We wish to emphasize that Mercy Hospital has a comprehensive Quality Assurance Program which measures many aspects of patient care quality, including mortalities. Mortality data are not, in themselves, measures of hospital performance, but a tool hospitals can use in combination with other measures.

Sincerely,

Robert Beyer
President and
Chief Executive Officer

James W. Copping, M.D.
Chief of Staff

r-48

MERCY HOSPITAL
1100 MICHIGAN AVENUE · GRAYLING, MICHIGAN 49738 · (517) 348-5461

October 26, 1987

Hospital 23-0058

The data provided Mercy Hospital contain one patient who was tranferred to another acute facility, and one incorrect date of death. (see attached)

The HCFA mortality data alone cannot be used to judge quality care within a hospital but rather can be used as a screen for further review. The model fails to consider a wide range of factors with a significant impact on mortality; such as general health status, stage of illness, whether death was an expected outcome of that hospitalization, psychological condition, and family support.

Mercy Hospital is committed to providing quality care to the patients it serves. Through the quality management process all aspects of patient care are monitored and evaluated. All deaths occuring in the hospital are carefully reviewed and care rendered these patients evaluated.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

MERCY HOSPITAL

400 HOBART STREET CADILLAC, MICHIGAN 49601 (616)775-1331 DIVISION OF SISTERS OF MERCY HEALTH CORPORATION

October 26, 1987

Hospital 230081

In reviewing the data that was provided to us, we found three incorrect dates of death.

It is our feeling that the mortality rates are not a gage of the quality of care to the patients in our hospital. The information presented does not take into consideration the condition of the patient on admission, the severity of the illness or the patient/family concerns.

We have a commitment to our patients in our hospital to have high standards of quality care and have review mechanisms in place to monitor the services we offer. This process is overseen by our Quality Managment Council, Quality Management Committee of the Divisional Board and the Divisional Board.

Mercy Memorial Hospital
740 North Macomb Street
P.O. Box 67
Monroe, Michigan 48161
313-241-1700

October 26, 1987

HCFA/EXEC.SEC.
1987 OCT 30 AM 10:26

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington, DC 20201

Dear Dr. Roper:

Mercy Memorial Hospital is in receipt of the HCFA Mortality Study to be presented to the public in December 1987. The analysis has been reviewed by the Medical Records Department and the identified cases are found substantially correct. However, we have been unable to confirm two of the listed deaths.

Distinct questions and impressions arise as a result of the study and it appears to be of significant importance that these areas of concern be expressed to you.

The methodology for development of your statistic analysis could create for the public a false and unrealistic impression of the characteristics of the community hospital and physicians. 1) The report presents crude information with no identification or information to correlate quality of care. 2) No adjustment has accommodated the seriousness of illness factor. 3) Mention is not made of the need for patient transfers to nursing homes at times of grave or terminal illness because the patients no longer fulfill the criteria of intensity of care (as defined by the Profession Review Organizations). 4) The number of patients who expire by their own wish or that of family decision (No Code) is not identified. 5) There is no correlation with the availability in the community of alternate levels of care: nursing home, home care, rehabilitation, a hospice. The public interpretation of this limited raw data with no relationship to the quality of care,along with lack of comprehensive and organized approach to the health care delivery system for seniors,does a disservice to the people, creating erroneous impressions and conclusions.

Sincerely,

Nancy Besserer

Nancy Besserer
Vice President

NB/cr

cc: Michigan Hospital Association (Marlene Soderstrom)

Michigan Osteopathic Medical Center
Subsidiary of Michigan Health Care Corporation
2700 Martin Luther King Jr. Blvd. • Detroit, Michigan, 48208
(313) 361-8000

October 26, 1987

William Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

The following comments represent our response to HCFA's upcoming release of hospital mortality data for Medicare beneficiaries treated at Michigan Osteopathic Medical Center, Provider #230221.

The Medical/Surgical Unit of Michigan Osteopathic Medical Center (MOMC) is a 240-bed acute care hospital located in Detroit's inner city. Our patient population can best be described as poor (53% Medicaid), elderly (22% Medicare), and non-white (77% Black, Hispanic or other) representing a service base with greater health care needs, more chronic conditions and poorer outcomes. We provide obstetrical, neonatal, general medical/surgical and geriatric care to our community without regard to a patient's economic status or ability to pay. In 1986, we provided services to indigent patients equal to about $1,400,000 in medical care which were not reimbursable.

We have reviewed the data released by HCFA concerning post-admission mortality at MOMC. We are pleased that our hospital was below the predicted mortality ranges for four diagnostic categories and within the predicted range for all others. In fact, we were below the midpoint or at the minimum of the range for 11 of the categories. From our review of the patient records involved in this study, it is evident that our patients were elderly (45% were over 80 years of age). There were also a significant number (33%) of "Do Not Resuscitate" candidates, representing a decision against any heroic, life-sustaining measures reached by patients and family after consultation with the physician. One hundred percent of these patients had at least two and up to five co-morbidities. Many of these patients had chronic, debilitating conditions as evidenced by their transfer from a nursing home to our institution (33%) (see attached table). In one diagnostic category alone (high risk pulmonary), 57% of the patients admitted were from nursing homes, 40% were over the age of 85 and all had at least three co-morbidities while 69% had five co-morbidities. These patients were sicker and had bleaker prospects for a favorable outcome than younger patients with only a single, acute disease.

According to HCFA's data, we infer that 11% of the mortalities attributed to MOMC occurred outside of the hospital. Although we are unable to verify the date, location and cause of death for these patients, our review of the medical records involved indicates that these patients were medically stable at the time of discharge. Because some of these patients either refused further treatment, refused to follow physician recommendations or were transferred to

either a tertiary care center or a nursing home, they were expected to have a poorer outcome. However, since we found discrepancies between what HCFA reports and what our medical records document concerning 17% of patient ages and 8% of patient death dates, we must question whether or not these patients did indeed expire within the 30 day time frame upon which the mortality study is based.

We take no complacency from these statistics. The HCFA data will be integrated into the hospital's Quality Management program in an effort to maintain and improve the high quality of care rendered at our institution. MOMC's Quality Management program was already strengthened in 1986 by the adoption of a concurrent review process (Medical Management Analysis) for the care given to 100% of all patients admitted to our hospital. Quality Assurance, Utilization Management, Infection Control and Risk Management have been integrated into a unified Quality Management program that enjoys strong, broad-based support from the Medical Staff. The focus of this program is on quality of care both in terms of outcomes for patients and the process of care. Any deviations from our quality of care screening criteria are subjected to peer review in order to determine whether or not the expected standard of care has been met.

The conclusions reached by this process are used by the departments of the Medical Staff to delineate privileges and make decisions relative to reappointment to the Medical Staff. The ultimate goal is to provide better care to our patients.

Very truly yours,

MICHIGAN OSTEOPATHIC MEDICAL CENTER

Edward I. Orley
President and Chief Executive Officer

EIO:mfb

Attachment

MOMC MEDICARE MORTALITY
PATIENT CHARACTERISTICS

	Less than 70 years	71 - 79 Years	Greater than or equal to 80 Years	Total
Age	17.7% (17)	37.5% (36)	44.8% (43)	100% (96)
"Do not resuscitate" status	8.3% (8)	8.3% (8)	16.6% (16)	33.3% (32)
Transferred from a nursing home	6.2% (6)	8.3% (8)	18.7% (18)	33.3% (32)
Cancer as a co-morbidity	2.0% (2)	12.5% (12)	8.3% (8)	23.0% (22)

MHC MIDLAND HOSPITAL CENTER
A Subsidiary of
MID-MICHIGAN
HEALTH CARE SYSTEMS, INC

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

MEDICARE PROVIDER #230222

Dear Dr. Roper:

In late September, we received the package of data from the Health Care Financing Administration (HCFA) regarding Medicare mortality rates at our hospital. The following are our comments relative to that data and the public release of it.

First of all, we want to express our appreciation for the opportunity to review the data prior to publication and to submit our comments for inclusion with the release. It is imperative that the data be as accurate as possible to avoid distortion of the statistics or misrepresentation of the facts.

With that in mind, we did compare, on a case-by-case basis, all the information you sent us with our hospital records. We did find one case that, based on our medical record information, we believe is included in your data by error. Our records indicate that we provided further treatment to this patient more than 30 days after the listed date of admission. The specific patient information is included on an attached sheet.

Secondly, although the methodology is clearly more sophisticated than last year, we do continue to have some reservations with the method used. Most notably, the model does not consider the severity of the illness at the time of admission. For example, in our case-by-case review, we found that 92 percent of the patients were emergent or urgent admissions, and at least 67.5 percent had significant multisystem disease. Furthermore, it has not been proven that the patient characteristics (age, sex, certain co-morbidities, etc.) used in the model are the only patient characteristics that have an effect on mortality. Variations from the predicted range may in fact be due to other patient characteristics, events unrelated to hospitalization, statistical chance and/or quality of care.

Obviously, the quality of care we provide is of utmost concern to our patients. It is equally important to our medical staff, employees, administration and board of directors. We have had, for many years, a very effective quality assurance program that is based on the investigation of any potential quality problems, and if a problem is confirmed, corrective action is taken.

The regular review of mortality data has always been one component of our program. The HCFA data is, of course, being included in our quality assurance program. It is important to note, however, that mortality data is only an indicator of a possible quality concern; not proof of a quality problem. For example, we were not complacent because we were within the predicted mortality range for all categories. Again, we did review each and every record for any potential quality concerns. We found that the average age of the patients included in the mortality data was 76 years and that nearly 60 percent had documentation on the medical record by the physician that the patient was, in fact, in the end stages of his or her disease process.

When this information is added to the high percentage of emergency admissions and the high percentage of patients with multisystem disease, it reenforces our concern that the data did not include any measurement of severity of illness.

We recognize that HCFA realizes the limitations of this data and is continuing to pursue ways in which to improve the methodology. Therefore, since the data cannot be used as proof of quality, we would encourage anyone who has a concern, as a result of the data, to talk to his or her physician or to contact a hospital representative.

Please be assured of our commitment to regularly evaluate the care we provide. We welcome any information that will assist us in our ongoing efforts to monitor the quality of care.

Sincerely,

David A. Reece

David A. Reece
President
Senior Vice President-MMHCS

DAR/sjr

9654D-119/120

MIDLAND HOSPITAL CENTER

HOSPITAL 230222

Patient ID	Surname (1st 6 Ltrs)	Diagnostic Category	Age	Sex	Date of Admission	Date of Discharge	Date of Death	Principal Diagnosis	Principal Procedure
[redacted]		CA	067	F	11/15/86	11/21/86	11/30/86	1972	3324

PLEASE DELETE THE ABOVE PATIENT FROM OUR STATISTICS,
OUR HOSPITAL RECORDS INDICATE SHE RECEIVED OUTPATIENT
TREATMENT IN JANUARY 1987.

MI 128.2

Mount Carmel
Mercy Hospital

October 27, 1987

Dr. William L. Roper, M.D.
Administrator of the Health Care
Financing Administration
Washington, DC 20201

Dear Dr. Roper,

Please accept this letter as written comment on the upcoming release of mortality data for all short-term acute care hospitals which treated Medicare patients in 1986. Our hospital and medical staff have thoroughly reviewed the data and sincerely appreciate receiving the data in advance, as well as the opportunity to publicly comment on the validity and interpretation of the data and its meaning to our hospital.

In reviewing the completeness and accuracy of the data, our hospital discovered that all of the patients listed in the information released to us, on September 21, 1987, were indeed patients at one time during 1986 at our hospital. Of the 336 patients, however, 17 were listed with the incorrect date of death and in fact died in the hospital, not out of the hospital as indicated in the HCFA data. We are providing you, through the attached list, the correct information about these 17 cases.

Without detailed information concerning the billing data available to Health Care Financing Administration (HCFA) in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

The study of mortality data is an integral part of our ongoing quality management program. It is our general belief that mortality data should be used principally by hospitals and their medical staffs to identify or suggest areas for indepth quality review.

Mortality statistics by themselves are not a measure of quality. As endorsed by the Joint Commission on Accreditation on Hospitals, quality is best measured through a variety of indicators on the process, structure, and outcome of care. In depth peer review should determine whether the standard of appropriate care was met. We continue to strive for improved measurements of quality which may be disseminated to the public. Until measures are improved to the point of common understanding, we remain opposed to public dissemination of mortality data.

The mortality information provided to us by HFCA will be included in studies that our hospital presently uses to focus on areas for further study of quality. The HFCA data is unique in that it includes deaths outside the hospital occuring within 30 days of admission. While these out of hospital deaths may not always be related to the most recent hospital stay, such information is useful to our ongoing efforts at looking at quality of care in the full spectrum, i.e. both pre and post hospital discharge.

A Ministry of the Sisters of Mercy Health Corporation

While our hospital was not outside any of the predicted mortality ranges, we did undertake an indepth study of the data and the specific information on death provided to us by HCFA. This particular study has confirmed previous findings related to our patient population which indicate that severity of illness and certain rules of diagnosis coding appear not to be appropriately accounted for in the HCFA model. These particular findings are as follows:

1. A significant proportion of our Medicare population of deaths are transferred to us from nursing homes. These patients are chronically, and often terminally ill, extremely fragile, and are at high risk for death. We would suggest that transfers from nursing homes be included as a factor in the HCFA regression model.

2. Through our review, we continue to see an impact on mortality based on the fact that our hospital is a designated trauma center with 60% of our admissions arriving through the emergency room. Again, the severity of illness encountered with these emergency room patients is not accounted for in the HCFA model.

3. We continue to see that our large Kidney Center, which treats patients with chronic kidney problems, has a tremendous impact on our crude mortality rates. The center's impact on our mortality statistics is twofold. First, the existence of the Center increases our proportion of chronically ill, high severity of illness, Medicare patients. And second, because of the etiology of kidney disease which results from many other comorbid conditions like diabetes we see misleading classification of deaths into diagnostic categories. We noted particularly that diagnostic coding rules in the case of death in these patients, specify that the principal diagnosis be the diagnosis which lead to the patient's admission. The principal diagnosis does not necessarily reflect the underlying chronic disease. For example, a chronic kidney patient with comorbin condition of diabetes may succumb to urinary tract infection, a low risk diagnosis, because the underlining chronic disease has debilitated the patient to the point of inability to battle major infections in the body.

In summary, we wish to assure you that the data released to us by HFCA will be used as part of our ongoing quality management efforts. We have a comprehensive quality management program in place and continue to work at refining and improving it. Our review of the data indicates that severity of illness is a key consideration in judging mortality rates and that it appears this may not be have been taken into account in the HFCA model. Also, specific rules in ICD9-CM coding may actually downplay the severity of a particular case, i.e. chronic renal failure.

We thank you for this opportunity to comment and we look forward to working with HCFA in further efforts at the measurement of quality.

Sincerely yours,

LeRoy D. Fahle
President and Chief Executive Officer
Mercy Hospitals and Health Services of Detroit

LDF/bjs

Cases With Date Discrepancies

HIC Number	Last Name	Diag Cat	Age	Sex	Adm Date	Disch Date	Date of Death	Prin Diag	Prin Pro
[redacted]		CE	084	M	07/21/86	07/23/86	07/31/86	431	
[redacted]		CE	090	F	04/09/86	04/18/86	04/30/86	4349	
[redacted]		CE	092	F	10/14/86	10/18/86	10/19/86	4349	8622
[redacted]		GC	042	F	06/04/86	06/21/86	06/30/86	5672	4603
[redacted]		GI	084	F	01/22/86	01/27/86	01/31/86	5695	4866
[redacted]		GI	075	M	06/03/86	06/04/86	06/06/86	5712	
[redacted]		HL	075	F	02/01/86	02/08/86	02/10/86	4039	5493
[redacted]		UN	098	F	05/08/86	05/14/86	05/31/86	0388	8622
[redacted]		HM	095	F	05/14/86	05/23/86	05/31/86	4280	
[redacted]		HS	081	M	04/12/86	04/19/86	04/20/86	4104	3772
[redacted]		HL	092	F	04/07/86	04/15/86	04/30/86	4292	
[redacted]		HL	068	M	07/18/86	07/27/86	07/31/86	42731	5493
[redacted]		HM	081	M	05/19/86	05/25/86	05/31/86	4280	9960
[redacted]		HM	079	M	12/02/86	12/06/86	12/12/86	4280	9960
[redacted]		HM	077	F	10/21/86	10/31/86	11/02/86	4280	9960
[redacted]		PN	096	F	03/13/86	03/14/86	03/31/86	486	9960
[redacted]		PN	090	F	01/30/86	01/30/86	01/31/86	486	

Each of these patients were deceased at time of discharge.

Mortality Data - Comments
10/23/87

The following information is provided so that our hospital may express it's concern for the use of mortality data as a quality assurance measure.

While the information received from HCFA is interesting, and it does indicate some areas for further analysis; it does not indicate that quality of care is a concern. The data does reflect that our hospital serves a significant elderly population. Absent from the HCFA information is any reference to the severity of the illness only indicated by the principal diagnosis.

When a hospital successfully meets the requirements of it's state health department and the accrediting body such as the JCAHO, it is difficult to understand how mortality can be a measure of quality.

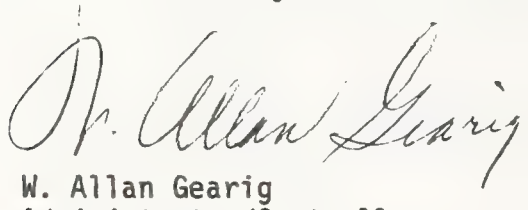
More specific concerns regarding the data are listed below:

1. A review of our records indicate the absence of information on five deaths. The inclusion of this information would have a definite impact on the overall rate and the rate coincident with the various principal diagnosis. If a number of providers in the HCFA data base experience this data variation the percentages could obviously portray an erroneous picture. This could be especially true for a small provider with fewer deaths.

2. The data, without some detailed analysis, does not indicate the age range of patients. In our case, nearly 50% of the deaths were for patients over 80 years of age. Further, 41% of the deaths occurred within 24 hours of admission indicating the severity of their condition.

3. One patient listed in this hospitals information was repeatedly admitted for a diabetic condition. The patient, a medicare recipient only 34 years of age, died resulting from an episode due to not being competent enough to care for himself. While death occurred within the 30 day period from the last admission, it was beyond the control of the provider or the practitioner.

Thank you for the opportunity to provide comments in advance of the publishing of the mortality data.



W. Allan Gearig
Administrator/Controller
Munising Memorial Hospital
Sand Point Road
Munising, Michigan 49862
Tel. (906) 387-4110

MUSKEGON GENERAL HOSPITAL

1700 OAK AVENUE MUSKEGON, MI 49442 (616) 773-3311

October 27, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
PO Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

At the request of Raymond G. Bishop, President of Muskegon General Hospital, I am responding to your letter of September 21, 1987 regarding the mortality information to be published in December.

Out of 79 total records, I verified data for 13 patients reported by HCFA as having died very shortly after discharge from Muskegon General Hospital (Hospital ID #230159). Of those 13, three (23%) have incorrect information:

1. [redacted] is 16 years of age, not 40, and was admitted for 540.9 acute appendicitis. [redacted]. In addition, the reported admission and discharge dates are incorrect.

2. [redacted] died in-hospital (not following discharge) on 4/4/86. HCFA reported the date of death as 4/5/86, 599.0 UTI.

3. [redacted] died in-hospital (not following discharge) on 4/12/86 not 4/13/86 as reported by HCFA.

To verify each and every entry for accuracy would be extraordinarily time-consuming and should be unnecessary.

Based on the discovery of inaccuracies in the data for Muskegon General Hospital, we are skeptical of the value of the mortality data published for any hospital.

Sincerely,

Joyce Leroux, RRA

Joyce L. Leroux, R.R.A.
Director of Medical Records

jre

Administrator
Jerry A Frohlich
Assistant Administrator
Paul H. Brandt

North Detroit General Hospital

3105 CARPENTER AVENUE
DETROIT, MICHIGAN 48212

TELEPHONE: (313) 369-3000

November 4, 1987

William L. Roper, M.D.
Department of Health & Human Services
6325 Security Blvd.
Baltimore, Maryland 21207

RE: Medicare Provider #230173

Dear Dr. Roper:

This letter is to serve as a follow-up regarding mortality rates for Medicare patients. As stated in our letter of 10-27-87, we took objection to the figures listed for our facility, but we needed more time to fully investigate.

After a thorough investigation we have concluded that the individual percentages per diagnosis are correct. However, an error was made by your department in the number of cases in total seen at our hospital during 1986. The figure of 1324 is only a six months figure. The actual number of Medicare patients discharged from North Detroit General Hospital for the year 1986 is 2315. Therefore, based on the 192 deaths, our true mortality figure is 8%, not 15%.

We would also like to bring to your attention, an error listed in discharged/death dates. There were four cases listed that your department claims the patients died after discharge from the hospital. in fact, the following four cases expired in the hospital on the date of "discharge":



Please feel free to publish the accurate mortality rate for Medicare discharges as listed above for our facility.

Sincerely,

Jerry A. Frohlich,
Administrator

JAF:lb

Administrator
Jerry A Frohlich
Assistant Administrator
Paul H Brandt

North Detroit General Hospital

3105 CARPENTER AVENUE
DETROIT, MICHIGAN 48212

TELEPHONE: (313) 369-3000

October 27, 1987

William L. Roper, M.D.
Dept. of Health &
Human Services
6325 Security Blvd.
Baltimore, MD 21207

RE: Hospital Mortality Information
Provider: 230173

Dear Sir:

Due to several hospital inspections and the short period of time allotted, we were unable to complete the analysis of information we received regarding Hospital Mortality Information.

At this point in our review process, a considerable number of significant discrepancies between your information and our data have been identified. Consequently, we feel that it is in the best interest of the hospital that we request an additional seven (7) days in which to complete our review and submit the information to you.

In anticipation of your acquiescence, we will proceed with our plan to have our summary of findings in your office no later than November 5, 1987.

We appreciate your cooperation.

Yours truly,

Jerry A. Frohlich,
Administrator

MI 137.1

NORTHERN MICHIGAN HOSPITALS
INCORPORATED
PETOSKEY, MICHIGAN 49770, (616) 348-4000

October 26, 1987

Health Care Financing Administration
Department of Health and Human Services
Attention: HSQ-148-GNC
P. O. Box 26676
Baltimore, Maryland 21201

Re: Mortality Rates released September, 1987

Gentlemen:

Thank you for the opportunity to comment on the release of information pertinent to hospital specific mortality rates for Medicare patients, 1986. We believe that this industry comment period is a very important and worthwhile step in the process of making the information public in December of this year.

We will not attempt to comment on the usefulness of the data, as we have made it clear in past communications that we believe the information to be incomplete, inappropriately configured and, for the most part, unuseable on the part of the general public in making hospital selection. In general, then, we will confine our comments to the data and its accuracy.

A review of the statistics released reveals that the data is correct in 91% of cases cited, and confirmed your findings that in every case, Northern Michigan Hospitals mortality statistics fell well within the expected ranges for our hospital. We were unable to verify deaths in approximately 9% of cases, and in four instances, the date of death published by HCFA was incorrect. In these cases, however, the deaths did occur within the thirty day period, and did not change the results materially. As was stated earlier, our facility was within the expected ranges, and in most cases, at the low end of predicted mortality rates.

We are concerned, again, not about the validity of the data per se, but rather, the formulae used to contrive the data. In an institution like ours, for example, it is impossible to create useful mortality data without taking into consideration the kinds and severity of patients admitted to our facility, compared to others in the general service area. Our case mix index is considerably higher than that of any other hospital in our area and we are generally known for our ability to care for the most acutely ill persons. Most (54%) of our patients are referred to us by a physician not on our medical staff, and over 60% of these patients travel 25 miles or more to come here for admission and treatment. It is clear that our hospital does not treat the "average" patient and must therefore be evaluated on a separate basis from those hospitals that do.

We have 299 beds in our facility, over 20% of which are specialty care (ICU, Cardio-Vascular, NICU, etc.) beds. Our technology is appropriate for the type of care we render, and includes linear accelerator radiation therapy, CT scanning, digital subtraction angiography, laser surgery, and a soon to be added MRI suite. Some 38% of our patients are Medicare patients.

Again, although we believe that the public has a right to facts which would assist in making healthcare decisions, we believe that mortality rates in and of themselves are not an indicator of hospital quality. A more accurate picture must include other quality indicators, would encompass all patients, not merely Medicare, and would take into account the severity of illnesses treated in a particular facility. In addition, we believe that patients themselves must be involved in deciding what exactly quality means in the hospital setting. Quality cannot be legislated or mandated by a governmental agency. Our hospital has built its reputation on quality care and our patients confirm this over and over again in our ongoing patient satisfaction and quality review process.

Physicians at Northern Michigan Hospitals must undergo strenuous quality and peer review and maintain a Board Certification rate of over 90% We have a Board of Trustees committee devoted to Quality Review, and have developed or are developing other mechanisms in the areas of quality assurance, utilization review and risk management to assure that our patients continue to receive the level of care that they have come to expect from us and upon which our reputation has been built.

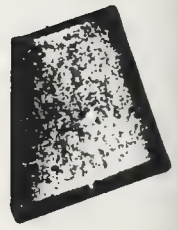
Again, we appreciate HCFA's decision to incorporate our comments into the data to be released to the public. We hope that such comment will help bring perspective to the limited significance of mortality data as a measure of quality and to the broader issue of quality itself.

Sincerely,

J. T. Wendling

Jeffrey T. Wendling,
Senior Vice President, Operations

JTW/dls



MI 139.2

Northwest General Hospital
YOUR DIRECTION FOR COMMUNITY HEALTH CARE

Medicare ID# 23-0224

10-26-87

COMMENTS ON THE HEALTH CARE FINANCING ADMINISTRATION MORTALITY DATA

The following information was identified through review of the mortality charts reported by HCFA. These variables were not taken into account by HCFA, and they could definitely have relevance to the mortality rate.

Admission through Emergency Room

100% of the cases were admitted through the Emergency Room. This suggests that the patients' medical conditions were very severe from the onset.

Inner-City Residents

100% of the cases were inner-city residents. This could suggest that access to health care is often difficult or impossible, thus adding to the probability of co-morbid conditions. In fact, 11/16, or 68% of the cases were within the high-risk categories. Furthermore, every case was reviewed by the hospital's Mortality Committee, comprised of physicians from various specialties, and were found to be inevitable deaths.

Patient Age

The average age for the 16 cases reported was 72, with six, or 37%, of the cases being over 80 years of age.

Summary

Mortality rates alone are not an indicator of quality of care. Many other variables must be considered, including the severity of illness, which was not taken into account by HCFA. The mortality statistics reported by HCFA only deal with the Medicare patients, and are therefore limited in their reflection of the hospital's overall rate.

Simply publishing mortality statistics, which are outcome data, without consideration to the specifics of each case, can only cause misinterpretation, and undue and unnecessary alarm among our patients and the community.

Northwest General Hospital

• an osteopathic institution •
affiliate of the Zieger Health Care Corporation
8741 West Chicago • Detroit, Michigan 48204 • (313) 934-3030

OAKLAND GENERAL
HOSPITAL
Osteopathic

October 27, 1987

Health Care Financing Administration
Department of Health & Human Services
Att: HSQ-148-GNC
P.O. Box 26676
Baltimore, Maryland 21201

Dear Health Care Financing Administrator:

Enclosed is our response to the Mortality data compiled by the Health Care Financing Administration.

Feel free to contact me if you have any questions.

Sincerely,

Melvyn M. Friedman, D.O./pk

Melvyn M. Friedman, D.O.,
Director of Utilization Management

MMF/pk

Encl.

27351 Dequindre
Madison Heights, Michigan 48071
313-967-7000

Lastly, we have also noted that our stringent Pre-Admission Review program has ferreted out all inappropriate admissions thus potentially reducing the number of total cases and increasing the corresponding rate of mortalities. Therefore, it appears that efficiency on one hand can and will produce a statistical aberration due to the concentration of moribund patients.

We look forward to collaborating with HCFA in the future analysis of quality indicators and refinement of the model. The following are recommendations designed to reduce the existing limitations.

1. Develop mechanisms to facilitate standarization and analysis of acuity of variables (i.e.: prior hospitalization patterns within 12 months of death, type of admission, and living situation prior to admission, for instance extended care facility.)

2. Develop mechanisms to identify purpose of admission and treatment plan, (i.e.: curative, supportive, terminal.)

3. Redefine diagnostic categories (i.e.: new and end stage disease, etc.)

4. Develop mechanisms to characterize key variables of studied facilities (i.e.: source of admissions, types of admissions, etc.)

5. Prospectively identify study variables to assist hospitals in developing internal monitoring and reporting mechanisms.

6. Develop mechanisms for comparing current and retrospective data.

Oakland General Hospital is dedicated to quality care. All deaths at Oakland General Hospital are considered significant and thus we have adopted internal management systems requiring 100% mortality review. The results of these reviews assists the organization in providing dynamic educational efforts and effective credentialling and practice patterns.

We thank you again for allowing us to share our thoughts on this subject prior to publication.

Oakland General Hospital welcomes the opportunity to review, analyze and comment on the mortality data compiled by HCFA for Medicare paid services rendered in 1986.

Although Oakland General Hospital's actual mortality rates are well within the predicted range in each and every assessed category, we nonetheless feel compelled to comment on several aspects of this quality of care initiative.

We agree with and laud your efforts in attempting to provide consumers of health care with meaningful information that will assist them in measuring hospital performance. We are likewise in agreement with your observation that even the improved methodologies contain limitations which require ongoing refinement. It may be worthwhile to mention that we encountered considerable difficulty in attempting to correlate and reconcile the HCFA data with that of the PRO and the hospital data collection systems. It is therefore apparent that there is a need for consistency and uniformity if statistical analysis is to be more meaningful. We feel that unmistakably valid indicators combined with standardized measurements are crucial to this endeavor.

We have reason to believe that impressions can be skewed for want of a severity of illness factor. Although this has been clearly recognized, one must wonder whether valid conclusions can ever be drawn without this most significant consideration. In our case we learned that 86% of our Medicare beneficiaries were admitted from the Emergency Department, one prognostic indicator of acuity. Also 91% of our patients had two or more diagnoses included within the HCFA high risk comorbidity diagnostic categories, a clear reflection of severity of illness.

Further 27% of the patients which were treated at Oakland General Hospital were transferred from extended care facilities. This type of transfer has a direct relation to acuity of need at admission, greater propensity toward mortality and, of course, highly guarded long term prognosis.

As stated in the model, the HCFA data analyzed only terminal admissions which does not reflect the level of care received prior to hospitalization. At Oakland General Hospital 32% of the population had one or more previous admissions during 1986. It is well documented that recurrent hospitalization is yet another factor reflecting severity of illness.

Another critical element is the purpose of admission and the ensuing treatment plan. We found 39% of the studied population had documentation reflecting patient/family requests for no heroic measures or resuscitative efforts denoting an exceptionally grave prognosis upon admission.

HSQ



Oaklawn Hospital
Quality Care. . .Close to Home

October 2, 1987

Dr. William Roper
Administrator
Department of Health and
Human Services
Health Care Financing
Administration
Washington, D.C. 20201

HEALTH & HUMAN SERV. SEC.
1987 OCT 13 PM 3:43

Dear Dr. Roper,

Thank you for the courtesy extended to hospitals by HCFA in allowing hospitals to review mortality information prior to furnishing it to the press. In reviewing your accompanying letter, however, I find I must disagree with your conclusion that the use of "sophisticated statistcal techniques" has resulted in a report which will be of value to patients in selecting a hospital appropriate to their needs.

When you ask the question, "What is the actual death rate for each hospital compared to what would have been expected for that particular hospital given the characteristics of patients admitted?", I feel you actually ask a question that would be impossible to answer. If a true attempt were made to define the exact characteristics of each patient admitted and each patient discharged, do you not agree that such other vital statistical data such as severity level of the case on admission, socioeconomic status of the patient, and the level of care the patient received after discharge would be essential?

For example, perhaps a patient comes to an inner city hospital suffering from severe chronic heart disease but in addition to this, has a long standing status of poor nutrition, having lived the life of a derelict. On discharge from the hospital, assuming that he is able to return to a sufficient level of improvement to be discharged, he returns to his life of deprivation, living alone and without any caring companion. Can this man be placed in the same diagnosis category as a wealthy suburban resident CHF sufferer, who having lived a life free of want with three hot nutritious meals prepared for him each day by loving hands, is admitted to a thriving local hospital, receives adequate treatment, and returns home not only to be cared for by his loving family, but having secured a private duty nurse to attend his every problem?

200 North Madison Marshall, Michigan 49068 (616) 781-4271

I can easily see the shocking and grossly unfair conclusions which will be made regarding the inner city hospital's high mortality rate whereas your program provides such a superficially outstanding rating for the suburban health care facility, their marketing departments will no doubt opt to advertise their excellence via quoting your statistics.

Other hospitals which will suffer unjustly high mortality rates include those which specialize in services which by their very nature have a high mortality rate including burn centers, Hospice Hospitals, and AIDS centers.

Though I am not a statistician, an elementary course in tests and measurements would supply the expertise to judge such a system as highly inaccurate and invalid. Without a more thorough review of the actual patient's case history, course of treatment, and socioeconomic conditions, it is unfathomable to me that a truly legitimate conclusion can be reached.

In conclusion, I find it quite ludicrous that the very agency which has imposed severe limitations on hospitals attempting to return severely ill patients to **health** now plans to penalize those hospitals even further by publishing unfair indictments which may adversely effect the **human services** those hospitals are able to offer in the future.

Sincerely,

Rob Covert

Rob Covert
Administrator

RC/ag



Oaklawn Hospital
Quality Care. . .Close to Home

October 23, 1987

William L. Roper, M.D., Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

We received in late September the report which displays information regarding Medicare patients treated at Oaklawn Hospital in 1986. Oaklawn Hospital appreciates the opportunity to respond to this report. For reasons to be discussed elsewhere in this letter, we do not feel this report accurately predicts quality. Our response will critique the following three areas:

A. Quality Prediction: The HCFA model as presented which develops mortality rates to purportedly measure quality.
B. Oaklawn Report: Information regarding the resulting report for Oaklawn Hospital.
C. Public Effect: The potential effect of your report.

A. Quality Prediction

Based on your report, the predicted overall mortality rate at Oaklawn Hospital was 7% to 15% and the actual rate at Oaklawn Hospital was 12%. Yet this 12%, which is within the predicted range based on your model, does not necessarily represent quality or the lack of quality. It does show on an overall basis that Oaklawn Hospital experience was within the predicted range of the HCFA model.

Not taken into consideration in the HCFA model are very important patient care issues including severity of illness, transfer policies from nursing homes, whether the patient was expected to die at time of admission, the patient's psychological state, and/or socioeconomic situation.

The data is not all inclusive as the report applies only to some Medicare admissions and is calculated using only deaths that occurred within 30 days of last admission.

Certainly the intent to offer a quality measure for hospitals

200 North Madison Marshall, Michigan 49068 (616) 781-4271

and consumers is a valuable goal. Oaklawn Hospital has many programs that have been developed to respond to quality care issues. Those include:

1. Quality assurance programming: a complete and extensive hospital-wide program extending to the Board level which monitors and evaluates all hospital services with a strong emphasis on quality assurance.
2. Peer review: section meetings by members of the Medical Staff in each area of specialization, focusing on chart review.
3. New patient chart: recently developed in a collaborative effort by Oaklawn Hospital's Administrative Staff and Medical Staff, a totally revised patient chart which offers an improved quality of care.
4. Accreditation: Michigan Department of Public Health, Joint Commission of Hospital Accreditation, College of American Pathologists, all have awarded full accreditation.
5. Medical Staff credentialing: extensive process which includes a six month provisional period during which time physicians abilities are intensely investigated.

B. Oaklawn Report

As the report is presented, mortality rates are offered in 16 different diagnostic categories specific to Oaklawn. Oaklawn Hospital was at the mean or had lower mortality on 14 of the 16 categories. Of the other two categories, Oaklawn Hospital was only slightly above the mean on one category and was only 1% outside the predicted range on the other, severe chronic heart disease. To evaluate the accuracy of the quality measured as determined by the HCFA model, three of the predicted mortality rates are reviewed as presented in the Oaklawn report.

*RN-Renal Disease: four cases are represented with a resulting 25% mortality rate and a range of predicted mortality of 2% to 75%. Does Oaklawn therefore offer excellent quality care in the area of renal disease? You simply can not tell because the actual truth is that four patients is too small a number for an accurate sample.

*CU-Urological Disease: 22 Medicare patients were treated with a resulting 5% mortality rate in a predicted range of 1% to 28% mortality rate range. Here again the numbers are too small to draw valid conclusions.

*HM-Severe Chronic Heart Disease: 34 patients were treated in this high risk category with a actual mortality rate of 38% in a predicted range of 10% to 37% for Oaklawn. Does the quality measure in actuality present a quality issue? The reality of these 13 patients is as follows:

-all of these 13 patients were severely ill with congestive heart failure when admitted.

-eleven died at the hospital.
-seven were no code or expected to die when admitted.
-two died out of the hospital, one at 22 days after discharge and one at 25 days after discharge.
-the average patient age was 82 with the oldest patient being 96.
-four patients were admitted from nursing homes.
-one patient was admitted from an extended care facility.

Had one patient lived just six more days, Oaklawn Hospital would not have fallen outside of the range.

The charts of these patients have been carefully reviewed by the peer review process and none were questioned for the quality of care offered.

As the consumer reviews media reports concerning the HCFA data, the quality of care at Oaklawn Hospital may be inaccurately perceived.

C. Public Effect

Oaklawn Hospital is a small, excellent, community hospital with an active Medical Staff of 23 doctors, 80% of whom are specialists. Our Intensive Care Unit is state-of-the-art as are our other services. We are debt free and a highly successful facility. Quality is a valid assumption as we have many carefully developed and implemented review programs.

The HCFA study, as it will be presented to our consumers, will offer an inaccurate indicator, measure, and definition of Oaklawn Hospital's quality, thus confusing consumers as to the best choice for medical care. Possibly for some, the report will offer encouragement to drive great distances to receive their health care, care that is available at, and of equal quality to, Oaklawn Hospital.

Sincerely,

Rob Covert

Rob Covert
Administrator

cv

Oakwood
Hospital
Corporation

18101 Oakwood Boulevard
P.O. Box 2500
Dearborn, Michigan 48123-2500
(313) 593-7000

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Oakwood Hospital has received the 1987 mortality statistics and has reviewed the underlying data. While some discrepancies relative to the discharge date or date of death were noted in your data set, we are more concerned that no allowances have been made for severity of illness or other socio-economic factors. We believe that large urban referral teaching institutions, of which Oakwood is one, are greatly impacted by those very factors not accommodated in the mathematical extrapolations in your morbidity tables. Such factors as severity of illness, issues contributing to death after hospitalization (i.e. inadequate nursing home care), physician admitting preferences and the reporting of deaths under the principal admitting diagnosis (i.e. D.R.G.) may obscure the exact cause of death, are not duly accounted for and will in fact mislead the public. We at Oakwood Hospital also believe that a review of hospital specific morbidity rates must be made in concert with the role that an institution plays in providing total health care to its service area and as such we provide the following for your consideration.

In reviewing the HCFA data it is important to recognize that within HCFA's selected diagnostic categories for Oakwood Hospital the average age at death ranged in years from seventy-five to eighty-six and the average age at death for all Medicare patients who died in Oakwood Hospital was in excess of average U.S. life expectancy norms. Factors in life style, the patients' prior medical condition and the presence of multiple diseases all play an important role in the patients' physical and emotional well being, quality of life, and his or her ability to recover. These factors are not represented in the crude death rates.

Oakwood Hospital, a 615 bed acute care referral teaching institution, is one of twelve hospitals located in Western Wayne County. The service area is characterized as a highly industrialized urban location with diverse ethnic groups living within a contiguous fifteen mile radius of the hospital campus. A significantly higher proportion of older adults to total population reside in Oakwood's primary service area than in the rest of the State of Michigan.

Oakwood Hospital is unique in its service area given its designation as a teaching hospital and its staff of more than 450 physicians, eighty percent of whom are Board Certified. These physicians provide specialized care for patients who are in the final stages of the disease process. As a result, patients tend to be sicker, as indicated by a higher than average percentage of patients who have one or more comorbidities.

As the sixth largest hospital in Michigan, and because Oakwood is a teaching hospital, it receives a significant number of patients who suffer from multi-system deterioration and have a poor outcome prognosis. Many of these patients originate from nursing homes and come to Oakwood after many previous hospitalizations at other institutions.

Oakwood has an active hospital-based emergency room, the sixth largest Emergency Department in Southeastern Michigan, treating approximately 45,000 patients each year. Approximately forty percent of Oakwood's inpatients are admitted directly from the Emergency Department.

As a recognized referral center for cancer patients, Oakwood is committed to offering a comprehensive cancer program that provides the patient and their families with quality care. An interdisciplinary approach is utilized, whereby treatment through surgery, medicine, and/or radiation therapy is available, depending on the type of cancer and the general condition of the patient. Because of the hospital's capacity to provide advanced clinical radiation therapy and chemotherapy service, many of its patients are referred to Oakwood at the final stages of their disease.

Oakwood Hospital has an open admission policy and does not discriminate against any patient based on the type or stage of illness, the individual's economic background, or the patients ability to pay.

Oakwood Hospital is committed to providing the highest quality care to its patients and has, to that end, long supported an excellent quality monitoring system, which reviews all aspects of patient care. Oakwood's Quality Assurance Department maintains an ongoing program that involves physicians, nurses, and other health care professionals, in the review of patient care systems and outcomes. Representatives of each of these groups are involved in evaluating the quality of care that is provided by their peers to inpatients and outpatients. All individual deaths are reviewed by a medical staff committee, as a part of the Quality Assurance Program.

Though the mortality statistics published by HCFA are crude and do not represent a comprehensive measure of the quality of care provided by a hospital, the data does represent additional information to further evaluate patient care and physician practice patterns. Oakwood Hospital will utilize this data in its continuing effort to enhance the quality of patient care.

Sincerely,

Karl Merkle, M.D.
Chief of Staff

Gerald D. Fitzgerald
President

GDF/ker

PCHA OUTER DRIVE HOSPITAL UNIT OF PEOPLES COMMUNITY HOSPITAL AUTHORITY

OLIVER G. CRUMP, *ADMINISTRATOR* • 26400 OUTER DRIVE, LINCOLN PARK, MICHIGAN 48146 • (313) 594-6000

Medicare Provider No. 230140

October 13, 1987

MEMBER COMMUNITIES

CITIES OF

ALLEN PARK

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SOUTHGATE

TAYLOR

TRENTON

WAYNE

WESTLAND

WOODHAVEN

YPSILANTI

TOWNSHIPS OF

HURON

SUMPTER

SUPERIOR

VAN BUREN

YPSILANTI

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
The Administrator
Washington, D.C. 20201

Dear Dr. Roper:

The HCFA mortality data for Outer Drive Hospital has been reviewed by members of our medical staff. In the category HS - Severe Acute Heart Disease, there were 24 deaths out of 42 cases with a mortality rate of 57%. The predicted range was 26% to 56%. Eleven (11) of the 24 deaths occurred within 48 hours or less following admission which supports the presence of a severe acuity of illness.

In reviewing the data, we noted that the average age of this diagnostic group was 77 years of age. In grouping the patients further, we found the following:

64-69 years	4 deaths
70-79 years	11 deaths
80-89 years	9 deaths

There were no quality issues found in our review of the cases. Concurrence was reached that the reported mortality rate in a predominantely acutely ill, elderly population with a history of chronic heart disease and other multiple diseases, combined with a somewhat lower than average social-economic background can be expected.

Comments were made regarding the inclusion of deaths that occurred within 30 days following hospitalization. While mortality rates for other categories were within the predicted range, nevertheless, had such non-hospital mortalities been excluded, actual rates would have been appreciably lower.

Sincerely,

Oliver G. Crump
Administrator

/jp

An Equal Opportunity Employer

Pontiac Osteopathic Hospital

50 N. PERRY ST. PONTIAC, MI 48058
313-338-5000

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir,

In response to the Health Care Financing Administration Mortality Rates, Pontiac Osteopathic Hospital issues the following statements:

1. The data released does not represent "true" mortality statistics. A correlation between the quality of care rendered and mortality can not be made especially for those patients who expired within the 30 days following hospitalization.

2. 67% of patients who expired with "severe chronic heart disease" were 80 years and older and had several co-existing disease entities which contributed to their death.

3. We strongly feel the quality of care rendered to our patients at Pontiac Osteopathic Hospital and others in the health care industry far exceeds any government mandated standards.

Thank you for the opportunity to comment on the 1986 Mortality Rates calculated by the HCFA.

Sincerely,

Joseph Territo DO

Joseph Territo, D.O., Medical Director/D.M.E.

PORT HURON HOSPITAL

Shaping the dream of a healthier future

October 23, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

RE: Port Huron Hospital Mortality Information
Medicare Provider No. 230216

Gentlemen:

Enclosed you will find Port Huron Hospital's response to HCFA's 1986 mortality information.

We appreciate the opportunity to analyze this data and comment prior to publication.

Sincerely,

Donald C. Fletcher
Executive Vice President

DCF:dlh
Enclosures

PORT HURON HOSPITAL

1001 KEARNEY ST. P.O. BOX 5011 PORT HURON, MICH. 48061-5011 (313)987-5000
CHARLES W. MCKINLEY-PRESIDENT

HCFA RESPONSE

Port Huron Hospital is a 253-bed acute care, community hospital serving St. Clair and Sanilac Counties in the thumb area of Michigan. We must pay special attention to the documented high cancer rate in our area, to the large elderly population, and the shortage of nursing home beds in St. Clair County in 1986, whenever we examine incidence of mortality for our hospital.

Upon review of the Health Care Financing Administration data for Port Huron Hospital, we noted that our actual mortality rates fell within the predicted ranges in all categories. There were, however, several errors in the HCFA statistics, none of which would change our mortality rates significantly, but should be mentioned:

o In three cases, the patients actually died while in the hospital, rather than after discharge, as reported by HCFA.

o In two cases, the patient was transferred to a Veterans Administration hospital, which means their last admission was not at Port Huron Hospital, and should not have been included in the data.

o Forty-four patients, or 22 percent of the 197 deaths died after discharge, often because their conditions were terminal and/or they had been discharged to nursing homes.

We also go on record as declaring that the Health Care Financing Administration data should be used to identify areas for review, but does not identify areas in which the hospital provides "high quality" or "low quality" care, or otherwise measure hospital performance. A mortality rate higher than predicted does not confirm the existence of quality problems, just as a mortality rate lower than predicted does not establish that the hospital provides high quality care. The hospital had a relatively small number of cases in certain categories, (in 11 of the 16 defined categories, we had less that 100 cases) which decreases the reliability of the data.

Actual mortality rates can be higher or lower than predicted because patients treated by hospitals differ in their severity of illness. HCFA data has not been adjusted to reflect severity of illness. In 55 percent of the Port Huron Hospital cases, the patients displayed one or more comorbidity (complications or multiple conditions.)

Also, and of special significance, is the fact that all HCFA data reflects ONLY Medicare patients, and does not reflect overall mortality rates for 1986; and the patients included in this study had an average age of 77.7 years.

Of course, Port Huron Hospital uses any indication of potential quality problems, including mortality rates that are higher or lower than predicted, to initiate prompt investigation by our Quality Assurance Department, to determine if any problem exists.

A preliminary analysis of the data from HCFA reveals the following:

1) To date, 110 out of 197 total cases have been reveiwed; In 81 out of the 110 deaths, a DO NOT RESUSCITATE order had been written at the request of either the patient or the family. In these cases, the terminal condition of the patient had caused the patient and /or family to request that no extraordinary measures be undertaken to prolong life.

2) The HCFA data does not reflect, in many cases, the actual causes of death, because information used was based on the patient's principle diagnosis, or the one used for the current hospitalization. In many cases, as previously noted, the patient suffered from as many as four separate conditions that contributed to overall severity. An example would be the category "Metabolic/Electrolyte Disturbances", which often masked the underlying cause of death which was cancer.

Port Huron Hospital and the Michigan Peer Review Organization agree that the HCFA data, in its present state, is not a good indicator of quality. The model does not include measures of severity, whether the patient was transferred to the hospital from a nursing home in grave condition, whether the patient was receiving treatment at home prior to admission, whether the patient had a terminal illness, or what was the patient's psychological or general health status. Hospitals treating unusually large numbers of severely ill patients may have a higher than predicted mortality rate.

The Quality Assurance Committee at Port Huron Hospital will continue to do in-depth evaluation of this data, along with its ongoing review of mortality.

PROVIDENCE HOSPITAL
16001 WEST NINE MILE ROAD
P.O. BOX 2043
SOUTHFIELD, MICHIGAN 48037
313 424-3000

Dear HCFA,
Here is the
attachment to
Providence Hosp-
tal's release of
HCFA's mortality
data. Just omit the
paragraph marked
out & the first word
of the next paragraph.

October 27, 1987

Department of Health and Human R
Health Care Financing Administra
Hospital Mortality Information
P.O. Box #26684
Baltimore, Maryland 21207

To Whom It May Concern:

Providence Hospital has received the mortality data on our Medicare patients. After analyzing the data, it appears to be relatively accurate. Providence Hospital is pleased to be below or at the low end of the predicted mortality range in each of the diagnostic categories.

Quality of care is of utmost importance to Providence Hospital's governing board, management and medical staff. When quality problems are identified, corrective action is taken.

Morbidity and mortality issues are under ongoing review at Providence Hospital. Each mortality case is subjected to quality screening. Any evidence of substandard care is subject to review by the Clinical Care Evaluation Committee and, in concert with the attending physician and the chair-person of the department, corrective action is undertaken.

It is widely recognized by those in the field of quality assurance, utilization review and risk management, e.g., ACURP, that the mortality rate of a given hospital is the only handle available to HCFA to evaluate outcome. It is a poor one and is seriously flawed as a method of evaluating the caliber of care. HCFA is aware of this but elects to ignore the protests.

Providence would like to comment that the model used by HCFA to arrive at mortality rates does not include severity of illness measures. Providence has a large number of very old patients in its service area. These patients are often sicker than the average patient or are transferred to Providence from a nursing home. None of these types of factors are taken into account. The ability of the model

HCFA uses to detect differences in quality has never been tested. The model assumes each hospital's patients are "average". For hospitals with a sicker population or special programs to treat more severely ill patients, it is only natural that these hospitals would have higher mortality rates. Also, HCFA's model counts deaths which occurred within 30 days of their last admission. Thus, patients who died after discharge are allocated to Providence Hospital's mortality rate. These deaths could be totally unrelated to the hospital stay. The ex-patient could have died in a car accident.

[redacted]

[redacted] a true indication of quality care can only be determined through peer review based on the standards of practice. It is unfair to both hospital and physician for HCFA or any other organization to reveal "quality indicators" without due consideration to this process.

Sincerely,

Cindy Johnston
Administrative Fellow

/jk

REDFORD COMMUNITY HOSPITAL

25210 GRAND RIVER AVENUE
REDFORD, MICHIGAN 48240-1499
531-6200

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
6325 Security Blvd.
Baltimore, Maryland 21207

October 21, 1987

COMMENTS ON THE HCFA MORTALITY DATA

DATA VERIFICATION

The data used by HCFA indicate that a total of 344 Medicare patients were admitted to Redford Community Hospital in 1986, of these Medicare patients, 70 died within 30 days of admission, 57 died while still a patient of the hospital, while 13 died after discharge.

Our own records indicate that 606 Medicare admissions occurred in 1986 . Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at Redford Community Hospital is correct. Our own records also indicate that of the 69 Medicare patients who died within 30 days of admission while still an inpatient, 9 were still alive at the time of discharge. It is impossible to determine the percentage of the 9 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

DATA CORECTION SHEET - Our records indicate the following:

Never treated at the hospital during 1986

HIC #	Surname	Categ.	Age	Sex	Adm.	Disch.	Exp.	Prin. DX.
[redacted]	[redacted]	ME	086	F	7/10/86	7/15/86	7/15/86	2765

Were treated, but date of discharge/or death are incorrect

[redacted]	PN	085	M	4/5/86	4/6/86	4/6/86	486
	ME	083	M	7/21/86	7/22/86	7/22/86	2765

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

REDFORD COMMUNITY HOSPITAL

25210 GRAND RIVER AVENUE
REDFORD, MICHIGAN 48240-1499
531-6200

continued:

COMMENTS ON THE HCFA MORTALITY DATA

The hospital's actual mortality rate falls outside of the range of the predicted mortality rate in only One(1) of the diagnostic categories, that category being Gastrointestinal Castrophies. Several factors may account for this difference. The overall age in this category was 85. A majority coming from home and being admitted through the Emergency Room. Due to general condition and comorbities, surgical intervention was not possible without stabilization. Patients expired before satisfactory surgical status could be accomplished. In addition, families requested DNR (Do Not Resusitate Orders) be issued in a significant number (50%) of these patients.

Other unique factors influencing our 1% higher than average mortality rate is the fact that we are a small community hospital (68 beds) with two active oncologists treating many end-stage cancer patients, accounting for a higher than average anticipated death population. Several patients who expired of other acute illness also had diagnosed metastatic cancer. Further, the average age of all patients in the HCFA study was 83 , 61% coming from a nursing home setting with an average age of 85. Thirty-Nine percent (39%) came from home with an average age of 81 with an unusually high number of comorbid or complicating conditions.

Overall findings from our preliminary review of all records in the HCFA data study showed significant numbers (approximately 80%) were admitted through the Emergency Room. Of these a number were in cardiac arrest and CPR was in progress during transport, resulting in anticipated deaths because of their age, medical history, general condition and family/and or patient's request for DNR orders. Additionally, there were requests from 50% of families/and or patients for Do Not Resusitate Orders (DNR) in the total survey population.

Because of our small census we feel the statistics don not give a true reflection of the Quality of Care rendered. During the study period the hospital overall death rate was 6% even though 50% of our patients were Medicare Patients.

We are also in agreement with MPRO, whose study of 1,000 MC death records reflected our finding , after review of all deaths in the HCFA study, that rarely, if ever, were major quality care items identified.

Thank you for the opportunity to express our comments on the HCFA Mortality Data for Redford Community Hospital.

RIVER DISTRICT HOSPITAL

4100 South River Road, St. Clair, Michigan 48079 - (313) 329-7111 or 765-3555

STATEMENT CONCERNING HCFA MORTALITY RATE FOR RIVER DISTRICT HOSPITAL

Provider No. 23-0241

River District Hospital conducts mortality review as part of its' ongoing quality assurance program. The Health Care Finance Administration (HCFA) mortality list we received was compared against the list compiled by the hospital. The list was verified with the exception of those patients who died after being discharged from River District Hospital. Under HCFA's model all deaths within 30 days of the last hospital admission are counted whether or not the patient died in the hospital.

In addition to verifying the data we looked at the condition of these patients upon admission to River District Hospital to get an idea of the severity of illness. Severity of illness is not accounted for in HCFA's model. Our analysis showed that 69% of the patients listed by HCFA were acutely ill and admitted through our emergency room. 70% of these patients admitted through our emergency room were documented as "no codes". This means that the patient or the patients family had asked that the hospital and physician take no heroic measures to keep the patient alive. The treatment in these cases is of a palliative nature designed to keep the patient comfortable.

Another 20% of the patients listed by HCFA were "no codes" who were not admitted through the emergency room. We found only nine patients who were not admitted through the emergency room or who were not a "no code" or both.

We feel strongly that this data must also be considered when evaluating the HCFA mortality data relative to River District Hospital.

River District Hospital is proud of the quality of care provided to its patients. This quality is maintained through an extensive peer review program under which staff physicians review patient charts to see if the care provided was appropriate and whether it meets the standard of patient care. Corrective action is taken if this is found not to be the case. A similar mechanism is used by the staff of each hospital department such as nursing to ensure that the best possible care is being provided. The hospital is accredited by the Joint Commission on Accreditation of Health Care Organizations (formerly the Joint Commission on Accreditation of Hospitals). The hospital is also reviewed and licensed by the Michigan Department of Public Health.

William B. Leaver, Administrator

Kenneth Bollin, M.D.
Chief of Staff

10/87

Riverside Osteopathic Hospital
AN AFFILIATE OF HORIZON HEALTH SYSTEMS

October 23, 1987

Thomas Morford, Director
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Mr. Morford:

The Administration of Riverside Osteopathic Hospital (Trenton, Michigan) has reviewed the results of the Health Care Financing Administration (HCFA) study on Medicare Predicted Mortality Rates. After close analysis of the cases involved, we have identified certain trends and inaccuracies of the information contained in the report. (Addendum A itemizes statistical corrections.)

- The most significant flaw identified in the study is the inability of HCFA to adjust the mortality statistics for severity of illness. HCFA readily acknowledges the fact that the tools to measure severity of illness have not been perfected. We concur that hospital mortality information is useful and we agree that until measures are included to address the complex issues of severity the information contained in the report cannot be used as a sole indicator of quality care at an individual hospital.

- Riverside Osteopathic Hospital has a long standing reputation of providing compassionate health care to geriatric patients. Some members of the medical staff have affiliations with nursing homes and supervised living centers. This relationship has a direct effect on the profile of the Medicare patient population cared for at Riverside. The statistical model used in this study does not take into account the source of patients. In the two categories in which Riverside is reported to exceed the predicted mortality range, this is an important factor. Fifty-eight percent of the gastrointestinal catastrophe cases were admitted from nursing homes or supervised living centers. These are the same admission origin for 65 percent of the cases in the pulmonary disease category. Older persons cared for in these facilities are often more debilitated and suffer from a combination of diseases and conditions which contribute to their declining health and ultimate death. Though one factor may be identified as cause for admission, the primary cause for that admission may be aggravated by other pre-existing problems.

- The incidence of mortality looks only at outcome and does not represent the health care team's treatment objectives. Treatment of a patient,

150 Truax Street
Trenton, Michigan 48183
313-676-4200
Hospital Provider #230169

- particularly those with advanced disease, may be of a palliative nature rather than a curative. Many of these patients or their families requested no "heroic" measures to sustain life, preferring instead, death with dignity. Eighty-seven percent of the mortalities listed in gastrointestinal catastrophe and pulmonary disease had requested no extraordinary measures to extend life. Furthermore, the average age among our patients identified in the HCFA study was 78 years. Within the two diagnostic categories in which our facility reportedly exceeded the predicted mortality range, gastrointestinal catastrophe and pulmonary disease, the average age was 81 years and 79 years, respectively. These ages exceed the overall average age of the patients identified in the study.

- The HCFA study reviews only Medicare patients. This sample of the hospital's total case mix is further subdivided to concentrate only on Medicare patients who have died within 30 days of admission. No consideration is given to total population of Medicare patients treated at our facility. Relying on this subset of total Medicare admissions renders the study statistically vulnerable. Furthermore, of the deaths which occurred at home or at extended care facilities following discharge, 19% of those were attributed to a diagnosis unrelated to the last admission at our facility.

- The course of a condition is affected by various circumstances, many of which are unrelated to the patients' hospital care. Prior to admission, those circumstances include preventive health care measures, availability of medical care to the patient on an outpatient basis, patient's compliance with prescribed regimens, timeliness of diagnosis and timeliness of hospital admission. The statistical model also does not account for personal health care practices.

- This statistical model and mortality data were developed for use by peer review organizations throughout the country to guide or focus studies. The Michigan Peer Review Organization is the organization charged by the federal government to monitor the Medicare program within all hospitals in the State of Michigan. MPRO decisions are made only after thorough chart review and communication with the attending physician.
  Riverside Osteopathic Hospital has an ongoing quality assessment program which includes mortality review by all clinical departments. All cases in which death occurs undergo internal peer review for appropriateness of care and quality of care.
  In a further effort to investigate mortalities, we have requested the Michigan Peer Review Organization (MPRO) to provide us with any confirmed quality problems which may have been identified by its review of Medicare mortalities at Riverside Hospital. Riverside Hospital has, and will, continue to work in a cooperative manner with MPRO in this effort.

Respectfully submitted,

Patrick L. Muldoon

Patrick L. Muldoon
Vice-President/Administrator
Riverside Osteopathic Hospital
Hospital Provider #230169

Attachment A

Analysis of Reporting Errors

Provider #230169

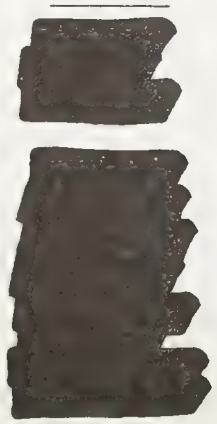
Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	17	2	18	1
CE -- Cerebrovascular Accidents	9	1	10	0
GC -- Gastrointestinal Catastrophes	9	3	9	3
GI -- Gastrointestinal Disease	8	0	8	0
GU -- Urologic Disease	3	0	3	0
GY -- Gynecologic Disease	0	1	0	1
HL -- Low Risk Heart Disease	3	6	3	6
HM -- Severe Chronic Heart Disease	16	1	16	1
HS -- Severe Acute Heart Disease	20	2	22	0
ME -- Metabolic/Electrolyte Disturbances	3	2	3	2
OP -- Orthopedic Disorders	2	0	2	0
PN -- Pulmonary Disease	22	5	24	3
RN -- Renal Disease	2	2	2	2
SE -- Sepsis	4	1	5	0
TR -- Severe Trauma	5	1	5	1
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	27	9	30	6
Total -- All Categories	150	36	160	26

MI 163.2

HIC #



SURNAME



	CORRECTION
Date of Death	09/26/86
Date of Death	02/08/86
Date of Discharge	08/31/86
Date of Death	08/31/86
Date of Discharge	07/15/86
Date of Death	01/15/86
Date of Death	11/23/86
Date of Death	12/21/86
Date of Discharge	07/25/86
Date of Death	02/26/86
Date of Death	08/20/86
Date of Admission	10/03/86
Date of Discharge	10/03/86
Date of Death	10/03/86

Saint John
Hospital

22101 Moross Road
Detroit, MI 48236
(313) 343-4000

Provider No: 230165

Response to HCFA Mortality Statistics

HCFA/EXEC.SEC.
1987 OCT 23 PM 12:58

The physicians and other health professionals who conduct the quality assessment activities at Saint John Hospital welcome efforts by the HCFA, JCAH, and others to supplement the large body of medical literature available for quality assurance purposes. Given the acknowledged limitations of the HCFA mortality statistics, these data will be carefully evaluated by health professionals, not as meaningful measures of quality in any sense, but as a means to promote comparative studies with peer institutions.

As a prospective patient or as a parent or guardian responsible for other's care, however, we urge you to continue to seek your personal physician's counsel as the most relevant source of information in deciding the type and site of medical care most appropriate to your individual condition. Your physician is best qualified to explain the varied risks and potential benefits of alternative modes of therapy unique to your circumstance. As a credentialed member of the medical staff of the hospital(s) where your treatment may be rendered, the physician is well acquainted with the technological capabilities and skills of the personnel necessary to your case. To maintain his privileges, the physician must attend meetings of his peers at which the relevant conclusions of case by case mortality and morbidity reviews are presented.

We encourage you to access health data from other reputable sources so as to be as informed a patient as possible when faced with healthcare decisions. The mortality rates published for Saint John Hospital are well within predicted ranges in the aggregate and for each subcategory, with nearly all rates at the mid to lower end of the ranges. Some facts about Saint John Hospital may help refine your perspective when interpreting these rates.

Saint John Hospital is a 607 bed teaching hospital, the largest on Detroit's east side. In 1985, we opened a $100 million Concentrated Care Building (CCB) designed for the care of the critically ill. Its Emergency/Trauma Center rates the State's highest designation of Emergency Care. In addition, the CCB houses a 30-bed intensive care unit, 12 operating rooms, including two open heart surgery suites, and a neonatal intensive care unit which accomodates 30 critically ill infants as part of a regional referral center for high risk pregnancies. The

Hospital operates one of the largest cardiac catheterization and open heart surgery programs in the state, with surgical mortality rates comparing very favorably with those of nationally recognized centers. By HCFA's own measure of service intensity Saint John ranks third in Michigan and is foremost in its service area.

Repeated surveys conducted by market research firms indicate that physicians and the public at large in the communities we serve identify Saint John Hospital as the place they plan to go if acutely ill and hope to be taken in a medical emergency. It is the character of our institution to care for the catastrophically ill as well as for routine medical problems. When reflecting on these mortality data in general among hospitals, consider also which institution may offer the greatest likelihood of survival with a positive outcome for specific medical conditions.



SALINE COMMUNITY HOSPITAL

October 23, 1987

William L. Roper, M.D., Administrator
Department of Health & Human Services
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Hospital
Provider Number: 23-0212

Dear Dr. Roper,

Saline Community Hospital has received the statistics compiled by the Health Care Finance Administration related to the mortality rates of Medicare patients. The hospital appreciates the opportunity to review these statistics, and welcomes information that enhances our current system of reviewing quality of care.

DATA REVIEW

Upon review of the data presented we find the following noteworthy:

A) Number of 1986 Medicare admissions according to our records: 765

1986 Medicare admissions according to HCFA: 451

The difference is due to the fact that HCFA counted only the last admission for each patient admitted during 1986. Many patients were admitted more than once to Saline Community Hospital, or other hospitals.

B) Number of deaths within 30 days of admission according to HCFA: 49

Number of deaths while admitted to the hospital: 32

Number of patients who died after discharge: 17

INTERPRETIVE REMARKS

In interpreting this data, several comments should be helpful:

1) Saline Community Hospital's mortality rate was within the predicted range of all 16 of the diagnostic categories studied by HCFA, and below the mid-point in all but 1. In this category, only 3 patients were studied, 2 of which died after having acute and chronic end-stage renal failure. 1 of the deceased patients died on the 7th day after admission, and the other died on the 29th day after admission in an extended nursing care facility while receiving skilled care.

2) 10 of the 49 patients who died were admitted from an adjacent long-term care facility. The 200 residents of that facility artificially raise the community's population of older people of fragile health. This contributes to the possibility of higher mortality rates.

3) The average age of our Medicare patients who died was 83; an age when multiple system diseases are frequently present.

4) Of the 17 patients who were discharged before they died, 14 (82%) were transferred to either an extended care facility, a tertiary health care facility or were given assistance with planning home health care at discharge. This responsible method of discharging patients helps to ensure that they are placed in the most appropriate setting for their health care needs.

5) Of those patients who died after being discharged, at least 1 died from causes other than those for which they were admitted. The inclusion of this, and possibly other similar cases is misleading.

Saline Community Hospital views this data as valuable input into our existing quality assurance program. As the health care system is being increasingly held accountable for both a high standard of quality and the inherent economics, Saline Community Hospital's goal is to be resonsive to this system while being responsible to the patient.

Sincerely,

William J. Lavery
Administrator

WJL:jaf

SALINE COMMUNITY HOSPITAL
400 W. Russell Street, Saline, Michigan (313) 429-1500

SHC SAMARITAN HEALTH CENTER
A Division of The Sisters of Mercy Health Corporation

5555 Conner Avenue
Detroit, Michigan 48213
(313) 579-4000

Writer's Direct Dial Number

October 27, 1987

William Roper, M.D.,
Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Samaritan Health Center has a longstanding commitment to providing the highest possible quality of patient care with the most effective and efficient use of available resources. This commitment is reflected in an integrated health center-wide Quality Assurance Program which includes all departments and services. As mandated by the Joint Commission on Accreditation of Health Care Organizations, it is an ongoing program designed to "objectively and systematically monitor and evaluate the quality and appropriateness of patient care and health center services, pursue opportunities for improvement and resolve identified problems." Although HCFA mortality data itself does not measure the quality of Samaritan's patient care, we believe the data will be useful in focusing our Quality Assurance Program's efforts to monitor and improve the quality of patient care.

As a unit of Mercy Hospitals and Health Services of Detroit, Samaritan Health Center serves the east side of Detroit with a 24 hour Emergency Center, 300 bed Main Hospital, 75 bed Mental Health Service, and 5 Neighborhood Family Care Centers. Samaritan is a part of the Sisters of Mercy Health Corporation, and reflects the ministry of the Sisters of Mercy to serve the health needs of the people of the city of Detroit.

Quality Assurance at Samaritan is a peer review process: physicians, nurses, therapists and others meet and review individual patient records and services on a confidential basis. These reviews are based on objective quality indicators as well as professional judgement. The results of these reviews are used to guide individual professionals, hospital departments and Health Center leadership. Specifically, results are used in the physician credentialing process. All of Samaritan is committed to seizing opportunities to improve the quality of patient care.

We have some comments for those who would interpret HCFA data as a direct measure of the quality of care at Samaritan Health Center:

1. The model used to establish predicted mortality ranges has never been tested or shown to predict quality of care. Even though Samaritan fell within all predicted mortality ranges, we do not embrace HCFA's model. Instead, we will use the data to search for and target opportunities to improve patient care.

2. Only deaths within 30 days of last patient admission are included. There is no recognition of the fact that many of these patients had multiple admissions within a year of their death. Mortality rates therefore are much higher than if all that patient's admissions were included.

3. Only Medicare patients are included. Samaritan is committed to providing quality patient care to all patients. Medicare patients represent a limited portion of Samaritan's total patients.

4. No severity of illness measure is included in the data. Measuring the severity of a patient's illness is difficult and controversial. Nevertheless, such information would be critical if comparing hospital mortality rates.

Based on the Michigan Hospital Association's analysis of HCFA mortality data, Samaritan's patients often face greater medical challenges than the average hospital patient. More Samaritan patients have comorbidities than the average Michigan hospital patient. Further, Samaritan patients often battle severe chronic illnesses. For example, twice as many Samaritan Medicare patients are under 65, when compared to the Michigan hospital patient population. As you know, to qualify for such coverage, a patient must be chronically ill for over two years.

It is important to recognize that Samaritan patients also face additional challenges which affect their health: lack of regular medical care (over 50% of our patients are emergency room admissions); alcoholism and chemical dependency (often complicating other conditions); and economic hardship. Our patients and staff face these problems together in an effort to achieve and maintain health.

We wish to thank HCFA for the data provided and the opportunity to comment on this information.

Sincerely,

LeRoy D. Fahle,
President and Chief Executive Officer
Mercy Hospital and Health Services of Detroit
Samaritan Medicare Provider Number: 23-0147

/jjm

SARATOGA
COMMUNITY HOSPITAL

15000 Gratiot Avenue
Detroit, Michigan 48205-1999
(313) 245-1200

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Medicare Provider No. 230063

Gentlemen:

Below are the public comments which we wish published with Saratoga Community Hospital's 1986 mortality data:

"Saratoga Community Hospital has always endeavored to provide quality care to the patient and community it serves. In keeping with that commitment, Saratoga regularly reviews mortality data and other more meaningful parameters of quality patient care.

As a result of this routine quality review, Saratoga did not find the HCFA data surprising. We customarily look at mortality rate as a function of total deaths per total admissions for the year. HCFA chose to focus only on those who died within 30 days of their last admission. Utilizing this industry standard, Saratoga's Medicare mortality rate is 6.7% less than that identified by HCFA's data release.

This rate may be best understood when you look at the unique community Saratoga serves. Fifty-three percent of all discharged patients utilized Medicare as their health care insurer. Additionally, 48.6% of all Medicare deaths identified by the HCFA data were greater than 80 years of age with accompanying comorbid conditions which one would expect in a population of this nature.

We are, however, unable to comment on the 30 deaths which HCFA identified as happening after these patients were discharged. Information to confirm, deny or explain these deaths is simply not available to us.

In summary, while the data represented by the HCFA release is not singularly the most useful information for quality review, Saratoga has taken this opportunity to evaluate this information, monitor for patterns and trends in our ongoing commitment to excellence in patient care and treatment."

Sincerely,

K. Rand Dykman

K. RAND DYKMAN
Executive Director

KRD:dp

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	20	4	20	4
CE -- Cerebrovascular Accidents	15	6	16	5
GC -- Gastrointestinal Catastrophes	6	2	6	2
GI -- Gastrointestinal Disease	11	3	12	2
GU -- Urologic Disease	2	2	2	2
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	10	3	11	2
HM -- Severe Chronic Heart Disease	31	3	32	2
HS -- Severe Acute Heart Disease	28	1	29	0
ME -- Metabolic/Electrolyte Disturbances	7	3	8	2
OP -- Orthopedic Disorders	0	0	0	0
PN -- Pulmonary Disease	18	2	18	2
RN -- Renal Disease	3	1	3	1
SE -- Sepsis	6	2	8	0
TR -- Severe Trauma	5	1	5	1
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	19	8	22	5
Total -- All Categories	181	41	192	30

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

PCHA

SEAWAY HOSPITAL UNIT OF PEOPLES COMMUNITY HOSPITAL AUTHORITY

EDWARD V. SLINGERLAND, *ADMINISTRATOR* 5450 FORT STREET, TRENTON, MICHIGAN 48183 • (313) 671-3800

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COMMENTS OF THE HCFA MORTALITY DATA

SEAWAY HOSPITAL, TRENTON, MICHIGAN

The data used by HCFA indicates that a total of 108 Medicare patients admitted to Seaway Hospital during 1986 died within 30 days of the admission. According to HCFA data, 74 died while still a patient of the hospital, while 34 (32%) died after discharge. Our records indicate that our facility had 1,343 Medicare discharges in 1986, while HCFA data identifies 723 Medicare admissions. Presumably, this discrepancy reflects multiple admissions of individual beneficiaries during the year. However, a discrepancy equal to one half of the Medicare population is significant to the interpretations of statistical analysis. While multiple admissions are factored into predicted mortality estimates, the data does not fully accommodate the patients who were severely ill but recovered sufficiently to allow discharge. The method of calculation used by HCFA employs a very limited statistical base to measure the performance outcome of a facility. 74 "Medicare deaths" in our facility measured against 1,343 discharges produces a mortality rate of 6%, far different from the 15% mortality rate calculated by HCFA.

Dr. William Roper is quoted in the "Hospital Peer Review" newsletter as having declared "Death is the ultimate negative patient outcome". We cannot accept this philosophy. Death is a natural and inevitable part of life. While death may be tragic or needless, it can also be a relief of suffering and agony for both the patient and the circle of loved ones who are left to passively observe the ritual of dying. To witness the progress our society has made in accepting death as natural, one need look only to the number of people who now prepare "Living Wills" requesting that in the absence of hope for meaningful life, heroic measures not be employed to prolong the act of dying. In our community hospital, a three month study revealed that 54% of our Medicare patients who expired had a patient or family initiated "No Code" (do not resusitate) order documented. This study did not include the patients who were discharged alive, nor who were ordered "No Code" less than 24 hours before death. These two factors, (the popularity of Living Wills and the frequency of "No Code" orders) substantiate our position that our society does not hold death as the "ultimate negative".

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Several parameters are readily identified as more accurate indicators of quality in a health care facility, such as nosocomial infection rates, specific utilization patterns, or procedural complication rates. The Chief Executive Officer of Michigan Peer Review Organization, Gary Horvat, stated on October 13, 1987, that these mortality rates are not viewed by his organization as valid indicators of quality.

HCFA found only one diagnostic category with an actual mortality rate higher than the predicted rate. This category is Severe Acute Heart Disease. A reduction of only one death would mean the actual mortality was well within the predicted range. The Michigan Department of Public Health has identified that for all age groups, 50% of all deaths in 1983 in Southeastern Michigan were due to heart disease. The group "Severe Acute Heart Disease" includes three diagnoses that fall within the 25 most frequently used diagnosis in Michigan. Neither of these two facts are documented as factors in the HCFA predictions. Given these facts regarding the frequency and severity of heart disease in Southeastern Michigan, it is not surprising that the actual mortality of most hospitals in Southeastern Michigan, including Seaway Hospital, was at the upper limits, or exceeded, the predicted mortality for severe acute heart disease.

Seaway Hospital does consider the HCFA data worthy of further investigation. A committee of physicians, charged with the responsibility to continuously monitor the quality of care within our hospital, will begin an internal analysis of the findings. Analysis will attempt to identify physician specific or category specific patterns. Identified patterns or perceived problems will be then studied with greater intensity.



517 291-3261

Sheridan Community Hospital

MEMBER AMERICAN OSTEOPATHIC HOSPITAL ASSOCIATION

301 North Main Street

Sheridan, Michigan 48884

Provider number 230178

COMMENTS ON THE HCFA MORTALITY DATA

Data Verification

The data used by HCFA indicates that a total of eight Medicare patients admitted to Sheridan Community Hospital died within 30 days of admission in 1986. Of these, six died while still a patient of the hospital, while two died after discharge (one in an auto accident).

Our records indicate that 330 Medicare admissions occurred in 1986. We have no way of verifying HCFA's number of Medicare patients treated at our hospital or to verify the accuracy of the diagnostic or other data used in the analysis.



SINAI HOSPITAL OF DETROIT

6767 WEST OUTER DRIVE
DETROIT, MICHIGAN 48235-2899

October 26, 1987

Health Care Financing Administration (HCFA)
Department of Health and Human Services
Attn: BERC-410-TN
P.O. Box 26676
Baltimore, Maryland 21207

Re: HCFA's Mortality Rate Data Release to Hospitals - #902

To Whom It May Concern:

We share with HCFA an interest in monitoring patient care quality. Of course, outcome is only one measure of patient care quality. We recognize that the data have many defects, which I am sure you are well aware. In regard specifically to mortality rates for respiratory diseases, it appears that we are on the high side of mortality in this area. Please recognize that Sinai Hospital is a center for pulmonary care, handling patients who have cystic fibrosis, an ultimately lethal disorder. In addition, we have had pulmonary care physicians who specialize in such respiratory cases and we also have a pulmonary intensive care unit. The mortality rate is undoubtedly skewed because of the nature of the diseases involving our patients.

In terms of heart disease patients, we have an outstanding cardiovascular program, that is an area of major emphasis in our hospital ranging from minor diagnostic procedures to those which are extremely complex, including a cardiac arrythmia clinic, cardiac angioplasty, cardiac rehabilitation and cardiac surgical procedures. Therefore, it is difficult to identify a specific cardiac case mix because of the overlap of the many disciplines involved in the care of cardiac patients.

Thank you for printing these comments with your data release.

Sincerely,

Gerald H. Mandell, M.D.,
Vice President for Medical and
Clinical Affairs

/gg

cc: I. Shapiro
Dr. James Kelly
Marcia Persin

SOUTHWEST DETROIT HOSPITAL
2401 20TH STREET
DETROIT, MICHIGAN 48216
(313) 496-7700

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

I am responding on behalf of Southwest Detroit Hospital regarding the mortality rates reported by the Health Care Financing Administration. In your report to us you indicate that we had 75 mortalities of medicare patients during your reporting period.

I have reviewed the charts of all 75 patients, and I would like to share some statistical information with you regarding these 75 patients.

1. Southwest Detroit Hospital is a small inner city community hospital. We are not connected with any major hospital and we are not a part of any medical center. Therefore, the majority of our patients come from the nearby community. 97.1 percent of the expired patients were residents in the city of Detroit.

2. 40 percent of our total population is Medicare patients.

3. The average age of those patients who expired is 78, the median age is 77.

4. Our Medicare patients are elderly and have chronic illnesses. Many patients come to us with several other comorbid conditions. HCFA only considered certain diagnoses as comorbidities but several were left out such as lung cancer and liver diseases from chronic alcoholism.

   Of those Medicare patients that died:

   - 82.9 percent of the expired patients had at least one (1) comorbidity present.
   - 51.4 percent of the expired patients had at least two (2) comorbidities.
   - 31.4 percent of the expired patients had more than two (2) comorbidities present.

One must also keep in mind that family members often requested that no lifesaving techniques be used on these terminally ill patients. They requested the patients be allowed to die peacefully and with respect.

5. Most of these patients come to us in very serious condition. 84.3 percent of these patients were admitted through the Emergency Room.

6. Many patients lived alone and did not receive proper food or care. Patients were admitted from:

Nursing Home	27.1%
Home (living alone)	28.6%
Home (living with spouse, friend, etc.)	41.4%
Other ECF	2.9%

7. Gary Horvat, Chief Executive Officer at Michigan Peer Review Organization stated "Mortality rate is not a definitive measure of the quality of care a hospital provides".

8. The expected life expectancy of Black Americans in this country is less than 75 years for females and less than 70 years for males. The patient population in our hospital is at least 90 percent Black.

Southwest Detroit Hospital is located in a poor area of Detroit which serves a high number of Medicare patients. Most of these patients are not only elderly but chronically ill. Many have conditions such as alcoholism and chronic obstructive pulmonary disease and do not follow their physician's orders or complete their prescriptions. A high percentage of these patients are admitted through the emergency room because of the fact that they wait until their illness is in an acute progressed stage rather than utilize preventative health maintenance to take care of the problem before the need for acute care arises.

We are striving to ensure proper discharge planning that is essential in caring for elderly patients after discharge, because *many live* alone and can not get around on their own. However, patients must take on part of the responsibility concerning their own health care needs and work wtih their physicians in order to achieve optimal health in the future.

Death is inevitable!!! The publication of mortality figures without extensive explanations can easily be misinterpreted by the lay public. I strongly feel that unless HCFA has strong evidence that a hospitals quality of care should be questioned, mortality information should not be published. If they are published, then they should be presented in such a manner that the lay public does not equate mortality with quality of care.

Sincerely,

James K. Johnson, M.D., F.A.C.S.
Vice President of Medical Affairs

JKJ:bj

EXECUTIVE OFFICES

15855 Nineteen Mile Road
Mt. Clemens, Michigan 48044
(313) 263-2700

Hospital Centers
Health and Treatment Centers
Health Education Center

FEDERAL EXPRESS MAIL

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Re: 1986 Medicare Mortality Rate Data

Dear Doctor Roper:

Mortality is <u>one</u> of many criteria utilized by St. Joseph's Hospital to monitor quality of care. HCFA, in reporting mortality rates, has used epidemiological characteristics such as age, sex, prior hospitalizations, transfer status, and chronic conditions affecting the risk of death. Using these characteristics, St. Joseph's actual mortality rates fell within the "range of predicted mortality rates" in all reported diagnostic categories.

We are concerned, however, that the HCFA methodology is limited in terms of other indicators which reflect severity of illness. At St. Joseph's, we have found two additional indicators ("transfer from nursing home" and "no-code status/no resuscitation requested") as having predictive value for mortality rates. In the "Sepsis" diagnostic category, for example, 70% of St. Joseph's mortalities were patients admitted from nursing homes, and 88% of the mortalities were "no code." Hence, we feel that adding such risk factors which reflect severity of illness will increase the validity/reliability of predicted mortality rates.

In our review of HCFA data, we found three cases reported as admissions for 1986 which all records indicate were actually admitted in 1985.[1] In a diagnostic category where only a few mortalities are recorded, such a reporting error can significantly affect the actual mortality rate.

We also found errors in the designation of principal diagnosis, thereby affecting the mortality rates within diagnostic categories. In "Severe Acute Heart Disease," for example, two cases should have been assigned to

other categories.[2] In "Severe Acute Heart Disease," we also found one mortality incorrectly assigned to St. Joseph's;[3] this death actually occurred at another acute PPS hospital.

These reporting errors were found in a review of a limited sample of the data.

Sincerely,

Mark L. Penkhus
President/Chief Executive Officer

/jg:0572g

---

[1]Cases admitted in 1985:

Patient ID No. (HIC)	Surname	Date of Admission
[redacted]	[redacted]	12-27-85
		12-24-85
		12-26-85

[2]Cases assigned to wrong category:

Patient ID No. (HIC)	Surname	Category
[redacted]	[redacted]	HS
		HS

[3]Mortality incorrectly assigned to St. Joseph's:

Patient ID No. (HIC)	Surname	Date of Admission
[redacted]	[redacted]	12-25-86

ST. JOSEPH MERCY HOSPITAL
900 WOODWARD AVENUE
PONTIAC, MI 48053

A division of Sisters of Mercy Health Corporation
A sponsored work of the Sisters of Mercy—Province of Detroit
Provider Number - 230029

Telephone number
of the undersigned (313) 858-3141

October 26, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

We welcome the opportunity to comment on the HCFA mortality data released for St. Joseph Mercy Hospital. We have reviewed the data and have enclosed our comments. These include a notation of errors in the data (see attached), a summary of programs we feel attract high risk patients to our hospital and comments regarding the HCFA methodology.

It is our strong feeling that although mortality data is useful information, it is not, in and of itself, representative of quality of care in hospitals. Similar to most hospitals, we have a thorough quality assurance program which includes mortality review as well as other specific indicators of quality. Mortality data is used to guide or focus peer review into areas needing further follow-up and/or action. We work very closely with the Sisters of Mercy Health Corporation on a comprehensive quality monitoring system. Furthermore, we are aware of the planned changes by JCAH which will provide a refined quality assurance methodology.

We are preparing for the public release of the HCFA data in December, 1987. Again, thank you for the opportunity to review the information in advance.

Sincerely,

Ronald J. Schurra
Executive Vice President

RS/tr/34

Enclosure

COMMENTS ON HCFA MORTALITY DATA

St. Joseph Mercy Hospital
Pontiac, Michigan
Provider Number: 230029

October 26, 1987

On review of the details of the deaths attributed to St. Joseph Mercy Hospital for calendar year 1986, these comments are put forth in response to the HCFA mortality data.

The following errors were noted:

- incorrect HIC numbers
- incorrect discharge dates
- incorrect dates of death
- deaths incorrectly cited as post discharge when they occurred in hospital

Programs at St. Joseph Mercy Hospital that attract patients with expected higher than average mortality:

- Supportive Care Services Program, treating chronically and terminally ill patients in the hospital and at home. Included are a high proportion of cancer patients.
- Cardiac Surgery Program for bypass and open heart surgery.
- Acute Hemodialysis Program.
- Affiliation with University based consultants for treatment of high risk gynecology cancer patients.
- Level I (for treatment of life threatening conditions) Full Service Emergency Center, accessible 24 hours per day.

Other factors affecting mortality, not accounted for in HCFA data:

- On individual case review, the majority of patients had multiple comorbid conditions.
- Severity of illness is not accounted for in HCFA data.
- Oakland County has a shortage of nursing home beds, consequently patients with chronic degenerative conditions are admitted to the hospital shortly before death or may remain hospitalized until a nursing home bed is available.

Comments On HCFA Mortality Data
St. Joseph Mercy Hospital
Provider Number: 230029

General comments regarding HCFA data:

- The HCFA data do not include measures of severity of illness, genetic background, how and where treatment was received prior to hospitalization.

- St. Joseph Mercy Hospital has a comprehensive, integrated Quality Assurance program which includes not only a thorough mortality review program but also a number of additional measures as well.

- Mortality data is reviewed in the Quality Assurance program only as a guide or to focus on more specific detailed analysis of potential problems.

PROVIDER NUMBER: 230029

ERRORS NOTED BY SJMH--PONTIAC ARE CORRECTED AS FOLLOWS:*

HIC D/C Number	Name	Dx Category	Age	Sex	Adm.Date	D/C Date	Date of Death	Codes
[redacted]		SE	080	M	1/10/87	1/19/87	1/20/87	0389
[redacted]		UN	082	F	1/2/87	1/5/87	1/5/87	78609
[redacted]		CA	078	M	5/27/86	6/16/86	6/16/86	1991
[redacted]		CA	072	M	4/29/86	5/3/86	5/3/86	1983
[redacted]		CE	082	F	4/17/86	4/29/86	4/29/86	431,3774
[redacted]		CE	079	M	4/19/86	4/20/86	4/20/86	4340
[redacted]		CE	055	F	4/10/86	4/12/86	4/12/86	431
[redacted]		HL	064	M	3/13/86	3/17/86	3/17/86	4111,3613
[redacted]		EY	078	F	1/12/86	1/14/86	1/16/86	36601,359
[redacted]		HM	090	M	1/24/86	1/28/86	1/28/86	4280
[redacted]		HM	093	F	7/3/86	7/4/86	7/4/86	4280
[redacted]		HM	070	M	2/9/86	2/13/86	2/13/86	4281
[redacted]		HM	079	F	9/23/86	10/5/86	10/5/86	4280
[redacted]		HS	073	M	7/29/86	7/29/86	7/29/86	4275
[redacted]		HS	083	F	7/7/86	7/8/86	7/8/86	4108
[redacted]		PN	078	F	2/4/86	2/16/86	2/16/86	49310
[redacted]		PN	079	M	1/19/86	1/25/86	1/25/86	496
[redacted]		PN	082	F	3/21/86	3/22/86	3/24/86	4912

MI 185.3

[redacted]	HM	066	M	2/3/86	2/13/86	2/13/86	4280
	SE	068	M	7/21/86	7/22/86	7/22/86	0389
	SE	088	M	8/19/86	8/20/86	8/20/86	0389
	UN	071	M	3/1/86	3/22/86	3/22/86	3201
	UN	076	F	1/18/86	1/28/86	1/28/86	2751
	UN	084	M	7/14/86	7/16/86	7/16/86	7854

PS/kl
10/26/87

*Based on review of random sample

MI 185.4

Catherine McAuley Health Center

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by Catherine McAuley

5301 East Huron River Drive
P.O. Box 992
Ann Arbor, Michigan 48106
(313) 572-4025

October 21, 1987

The Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE: HCFA Mortality Data for St. Joseph Mercy Hospital
Ann Arbor, Michigan Provider Number 230156

Dear Sirs:

We appreciate the opportunity to comment on the 1986 mortality data for Medicare admissions to our hospital that you plan to release in December 1987. Our primary objective as a Health Center is to continuously provide high quality care. We applaud endeavors to develop appropriate measures of which would allow the public to meaningfully compare quality among hospitals. Every inpatient death here is carefully reviewed by committees of our Medical Staff, and we also employ various screening techniques to monitor patterns of multiple patient outcomes, including mortality rates. We use national and regional comparison data bases in evaluating our experience.

St. Joseph Mercy Hospital is a large, acute care facility with teaching programs and highly specialized services, including high level emergency services, oncology and cardiac disease programs, and end stage renal disease care. The case mix of our Medicare patients is 44% higher than the national average. A substantial number of our admissions are referred from outlying areas or transferred from nursing homes, extended care facilities or other hospitals. Because of our patients' severity and stages of illness, we would expect that our unadjusted mortality rates to be higher than national or state averages.

We have an overall concern that the methodology used has never been validated and that researchers at the American Hospital Association and the Commission on Professional and Hospital Activities have suggested that this current methodology is seriously flawed both conceptually and technically. It appears that a substantial amount of chance is a factor in the rates produced, and the meaning of those mortality rates is therefore questionable as a measure of hospital performance. We are concerned that the report, as published, has the potential for misleading patients and being misinterpreted by the media as well.

The following concerns emerged from a review of our cases:

1. All deaths which occurred after discharge, but within 30 days of the admission date cannot reasonably be attributed to the quality of care received during hospitalization.

As one example, a patient who received care here for a urologic infection and then went home arrived at our emergency room four days later with a myocardial infarction and died there within hours. Under your methodology this patient was counted as a "urologic disease" death.

2. The method used does not adjust sufficiently for severity of illness and the stage of illness in developing predicted death rates.

   Some cases reviewed demonstrated the presence of more than four comorbidities, and some of these additional conditions may have been more significant to the cause of death than the diagnoses selected by HCFA. It also appears that all comorbidities are equally weighted, yet should not be for a given diagnosis. For example, agranulocytosis or leukemia are clearly more significant comorbidities for the diagnosis sepsis than is chronic neurologic disease. Further, several serious disease problems are missing from your list of "significant comorbidities", including: septicemia, acute renal failure, pneumonia, immune disorders, blood dyscrasias, and severe malnutrition, and some cancers.

3. Analysis of mortality should categorize deaths based on the principal disease state causing the death, not on the principal reason for admission to the hospital. Frequently serious illnesses characterized as comorbidities at the time of admission emerge quickly as the major health problem necessitating inpatient care, and subsequently explain an inpatient mortality.

   Another patient with urologic disease actually died from chronic lung disease and respiratory failure, not the urinary tract infection for which he was admitted to the hospital.

In addition to commenting on the method, we were asked to verify the accuracy of the mortality rates which are to be made public. Like other hospitals, we were unable to do so definitively, since sufficient supporting information was not provided by HCFA. Specifically, while we agree with the counts of deaths in the numerators of the rates, we could not verify the denominators. We were to count only the last admission of the year for all patients, but if a patient was discharged from our hospital and later admitted elsewhere during 1986, we could not exclude the patient from our data since we have no knowledge of these subsequent admissions. Our denominator estimates were 10 percent higher than those given in the report, but we cannot conclude whether this 10 percent was truly admitted elsewhere, or whether there may have been errors by HCFA in the calculations.

In summary, while we support sincere efforts to improve quality of health care, we believe that the concerns raised by our Medical Staff in reviewing these data and by others in the research community are serious, and that public release of this information could actually mislead the public, particularly if HCFA's actual mortality rate were published in other media without the range of predicted mortality rates for that specific hospital. A community's trust in its hospital and medical staff is a fragile but essential component of the hospital's ability to serve, and it would be most unfortunate if a hospital's reputation in the community was severely damaged through publication of unfavorable data which were later determined to be in error. Such damage is not easily repaired. While our report was favorable this year since all of our mortality rates fell within the predicted range, we are concerned that this flawed methodology could misrepresent our quality of care in the future.

We hope that HCFA will seriously consider the concerns raised, and that future steps in refining the methodology will include more careful empirical study by researchers and earlier involvement from the medical and hospital communities.

Charles M. Watts, M.D.
Chairman, Medical Care Evaluation Committee

Robert E. Laverty
President

R87-328

Hospital & Healthcare Services St. Lawrence

October 23, 1987

COMMENTS ON THE HCFA MORTALITY DATA
St. Lawrence Hospital, Lansing, Michigan

Medicare Provider Number: 230157

Dear Sirs:

Thank you for your efforts in providing hospital-specific data for 1986 mortalities in the Medicare population. It should be emphasized that mortality data such as this provided by HCFA is only one indicator of quality of care. It is hoped that HCFA will continue to assist in informing the public by expanding the quality indicators reviewed and refining them to reflect the true quality of care rendered in hospitals.

We have verified the data for our facility and have noted the following discrepancies in data.

1. Two cases are listed by HCFA with incorrect date of death. Our own records verify that these patients died in the hospital on an earlier date.

Case specific corrections are included in the enclosed case listing.

Thank you for your assistance in correcting these discrepancies.

Sincerely,

Arthur Knueppel
President and Chief Executive Officer

1210 W. Saginaw ☐ Lansing, Michigan 48915 ☐ 517/372-3610
Division of Sisters of Mercy Health Corporation

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

stLukes

October 27, 1987

William Roper, MD
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Reference: Provider #23-0070

Dear Dr. Roper,

I want to thank you for the opportunity to comment on the Mortality Statistics for Medicare Patients treated at our hospital prior to their publication. We understand and respect your intent of providing the public with an indicator by which they can compare hospitals.

The quality of care delivered to our patients is of the utmost importance to St. Luke's Hospital also. We have active hospital wide and Medical Staff quality assurance programs. These programs are overseen by a multidisciplinary committee of the hospital Board of Directors. The Medical Staff will be using the information you have provided us to further review the care given to these patients and to assess that the care was appropriate and of good quality.

Below we have made comments in several areas regarding the information you provided. First, we have identified some data errors, which we have listed below. Second, we are concerned about a wide discrepancy in the number of Medicare patients. Third, we have commented on an ICD-9-CM coding convention's impact on the classification of patients into the Low Risk Heart Disease category. Last, we have some general comments.

DATA ACCURACY:

We have identified data inaccuracies in the following cases:

[redacted] - The listing states the last admission on this patient to be 5/28/86 to 5/29/86, however the patient's last

ST. LUKE'S HOSPITAL
700 COOPER AVENUE SAGINAW, MICHIGAN 48602 TELEPHONE (517) 771-6000

hospitalization was actually from 5/30/86 to 6/5/86, the date of death. The principal diagnoses on the last admission was 410.1, acute myocardial infarction of the anterior wall. This diagnosis will change the categorization of this patient from the HL, Low Risk Heart Disease category to HS, Severe Acute Heart Disease category.

[redacted] - The listing lists this patient's last admission as being 4/22/86 to 4/24/86 but it actually was 4/25/86 and the patient died in the hospital on 5/21/86. The final diagnosis on the last admission was 410.4, Acute myocardial infarction of the inferior wall. This diagnosis also will change the categorization of this patient from HL to HS.

When these two (2) cases are reclassified from a low risk heart disease category to a high risk heart disease category, as indicated as appropriate by the final diagnosis, the mortality rate for Low Risk Heart Disease changes from 8% to 7%.

DISPARITY IN PATIENT VOLUME

We are concerned with a discrepancy in the number of patients. You have identified 2108 patients whose last admission was at St. Luke's Hospital. When we analyze our data through two different sources, we identified the last admission of 2607 Medicare patients. This is a 23.7% or a 499 patient discrepancy. We counted only the last admission on these patients. It is difficult to believe that 499 of these patients went to another PPS hospital after being discharged from St. Luke's Hospital. Since the total number of patients is the denominator used in calculating the mortality rates, our major concern lies in the impact this difference has on our mortality rates.

IMPACT OF ICD-9-CM CODING CONVENTIONS:

Coding conventions require that the manifestation of the cardiovascular (heart) disease be first coded as the principal diagnosis and that the cause and other underlying cardiovascular problems be coded as secondary diagnoses. In these cases, both the principal diagnosis and the secondary cardiovascular diagnoses have to be viewed together to understand the patient's disease. Otherwise, one cannot distinguish between patients with a history of severe acute heart disease, such as those with previous open heart surgery, from those with no prior history. The result of not acknowledging this feature of the coding system is that some patients may be classified as the Low Risk Heart case when in fact they are high risk.

HOSPITAL SPECIFIC COMMENTS

We have a greater percentage of low risk heart disease patients that are over 75 than does the state. Fifty-two percent (52%) of our low risk heart disease patients are over 75 years of age while only 30% of the state low risk heart patients are greater than 75. The patient, or the patient's family, had requested in 40% of these cases that no CPR or resuscitative measures be taken.

St. Luke's Hospital treats many pulmonary patients both on an in-patient and out-patient basis. It has a nursing unit that is devoted exclusively to the care of pulmonary disease patients. It also has a very active cardio pulmonary department, which helps in treating these patients.

There are a number of physician Pulmonary Specialists who are admitters to our pulmonary nursing unit; therefore, it is natural that one might find a high volume of critically ill patients with respiratory problems (such as chronic obstructive pulmonary disease) which often lead to respiratory failure and death. In over 40% of the Pulmonary deaths, the patient or the family requested that no resusitative measures be taken.

Many of the patients who died at St. Luke's Hospital were over 75 years of age. Sixty-six percent (66%) of the patients in the Pulmonary category who died were over 75 years of age. In the CVA category, 64% were over 75. In the high risk heart disease category, 77% were over 75. In the severe chronic heart disease category, 70% were over 75. In the renal disease category, 80% were over 75. In the sepsis category, 100% were over 75 years of age.

Sincerely,

Helen Thompson, RRA
Director, Medical Data Services

St. Mary
Hospital

Family-Centered
Wholistic Care

October 26, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

We have reviewed the mortality data released to us by your office and both welcome and appreciate the opportunity to make the following comments regarding said data:

Along with healthcare statisticians, and the Joint Commission on Accreditation of Healthcare Organizations, we strongly believe that HCFA mortality data is not an indicator of quality care. We fear that HCFA's release of death rates, will give the public the erroneous perception that hospitals with high death rate render sub-quality care to their patients, since mortality data can be easily misinterpreted and thus cause apprehension and anxiety among Medicare beneficiaries and the public in general.

HCFA's model, we feel, lacks statistical validity and is seriously limited in its ability to allow comparisons of hospitals on the basis of the number of deaths which occurred in these institutions, since the data to be published will not reveal the seriousness of the illness at the time of admission. Nor will it disclose the number of patients who were moribund at the time of admission; the number of patients who were in the terminal stages of their diseases, such as patients with renal failure or cancer; the number of patients whose families requested, "Do not resuscitate", or "Do not use extraordinary means"; and the number of patients who had multiple serious comorbidities with an expected outcome of death; the number of cases where too much time elapsed from the onset of an illness to the time the patient sought medical help, to be effective.

The above can well be illustrated by considering just two of the categories of deaths which occurred at St. Mary Hospital. St. Mary Hospital is the first hospital located off a major interstate highway. Consequently, we see a good number of motor vehicle traumas in our Emergency Department. Yet of the 78 trauma cases treated at our hospital, only seven resulted in death. Of the seven, two were motor vehicle accident victims and the other five were patients with fractured femurs who died of concurrent complications such as: cardiac arrest, metastatic neoplasm and pulmonary embolus. The question arises in our

36475 W. Five Mile Road Livonia, Michigan 48154 (313) 464-4800

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minds, whether HCFA data will reflect these facts, or will the public infer that sub-quality medical care was rendered to our patients.

An analysis of the gastrointestinal catastrophies at our hospital revealed the following facts: A total of 49 patients with severe gastrointestinal diseases were treated at St. Mary Hospital in 1986. Eleven resulted in deaths. A majority of these patients did not seek immediate medical help and it took any where from 24 to 48 hours from the onset of the illness, to the time they were brought to our Emergency Department for medical care. Almost all of the patients were in shock. The concomittant problems of these patients, were bleeding esopageal varices; cardiac arrest; metastatic terminal carcinoma; and mesenteric artery thrombosis. The average age of these patients was 76 years. Despite intensive and appropriate medical intervention, the patients expired. Again we ask, will the data published by HCFA indicate to the readers that death resulted despite quality care, or will the public conclude that sub-quality care was rendered?

Another area of concern to us is the fact that physicians are required by Professional Review Organizations, (Michigan Peer Review Organization in Southeastern Michigan), to list as the principal diagnosis, the condition for which the patient was admitted. Thus, the principal diagnosis in many cases, is not the cause of death. Yet HCFA classified all deaths in their model on the basis of principal diagnosis. To illustrate, deaths classified as renal disease mortalities, were due to one of the following causes: widespread metastatic carcinoma; cardiac complications arising from renal involvement; cerebral vascular accident which occurred following admission; and end stage renal disease.

QUALITY OF CARE is of the utmost concern to the St. Mary Hospital Board of Trustees, to Administration, to the Medical Staff, and to the total hospital personnel. Peer review and evaluation of quality of care rendered by all medical practitioners, is incorporated into our on-going, systematic, comprehensive Quality Assurance Program. The Medical Staff in evaluating quality of care, uses two approaches: tracing compliance with standards of care as recommended by the Joint Commission and other accrediting agencies, and by monitoring adverse patient events which are not a natural consequence of a patient's illness, disease, condition or procedure. Once a remediable deficiency in patient care is identified, immediate corrective action is instituted and reported to the Medical Executive Committee and the Board of Trustees of the hospital.

One of the on-going activities of our total Quality Assurance Program, is the monthly review and discussion of mortalities at the various departmental meetings. Our Medical Staff believe that mortality data can only be evaluated through peer review and not merely through simplistic statistical comparisons.

We sincerely hope that our comments and observations will aid HCFA in its efforts to refine its analytic methodologies, and its data validation techniques, and in developing statistical measures that will truly reflect the quality of care rendered by the hospitals.

Sincerely,

Sister Mary Modesta
President and Chief Executive Officer

Joseph Weiss, M.D.
Chief of Staff

SMM/JW/bjm

SAINT MARY'S HOSPITAL, 200 JEFFERSON, S.E., GRAND RAPIDS, MICHIGAN 49503

Office of the President
(616) 774-6399

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

Re: Response to HCFA Publication of Mortality Data for Saint Mary's Health Services, Grand Rapids, Michigan
Provider No. 23-0059

Dear Sir:

I am writing to respond to the publication of mortality data calculated by HCFA and planned for public release in December, 1987. We have reviewed the data for our hospital and the calculation methodology used. While this data represents a significant improvement over the prior publication of such data, there are still significant problems with the methodology which we believe can lead to misleading conclusions and unfair results. An analysis of the data for Saint Mary's Health Services is demonstrative of this fact.

In reviewing the data for Saint Mary's Health Services we were pleased to see that only one of the diagnostic categories examined by HCFA, i.e. that of gastrointestinal disease, was outside of the predicted range. HCFA had predicted a mortality rate of 3-9%, and our actual mortality rate was 10%. Although this is a seemingly minor deviation I felt compelled to review this data in depth and therefore commissioned a review of all 30 cases in this category.

This detailed review of the cases yielded information that demonstrates how crude a measure the simple predicted mortality rate is and indicates why we have reservations on the process. For example, of these cases two involved cases of patients admitted through our Emergency Care Center, due to massive bleeding. In one case surgery was not successful in controlling the bleeding, and in

the other the patient was not a candidate for surgery due to an age of 97 years. Both patients were given the ICD-9-CM code of 578.9, or gastrointestinal catastrophe. These were not in fact gastrointestinal disease. In addition to these examples, four patients expiring at Saint Mary's refused treatment, which led to their deaths. Fifteen other patients were classified as "do not resuscitate" due to age and other health related factors after consultation with their family. Seven of the deaths involved chronic alcohol abuse and in fifteen cases the patients had a high degree of acuity due to morbid conditions.

Of the thirty patients four involved cases where the patient expired after being discharged from this hospital. In one case the patient was discharged in good condition. However, due to several co-morbid conditions including heavy alcoholism, the patient later expired. In a second case a 90 year old patient was transferred to this hospital from a nursing home, evaluated by a surgeon and a gastrointestinal specialist, and determined to have a poor prognosis, and therefore transferred back to the nursing home for simple supportive care. In the third case a patient was discharged to an intermediate care facility in this area and was expected to return home. However, due to severe depression from the recent loss of a spouse, the patient failed to follow up for additional care through the private physician's office and later expired. In a fourth case the patient was discharged from Saint Mary's to an intermediate care facility in good condition.

In summary, of the thirty cases listed for Saint Mary's Health Services in this category, four did not expire at Saint Mary's, four refused treatment, and two were gastrointestinal catastrophies with an extremely poor prognosis by the time they arrived at Saint Mary's. Removing these cases from the calculation of data at Saint Mary's provides a more accurate picture and one that is at the low end of any predicted range. We applaud HCFA's underlying intent to improve the overall quality of care, but would urge further research and development to provide more accurate measures and methodologies.

Sincerely,

Stephen A. Robbins, Esq.
Interim President and C.E.O.

SAR:slh

cc: Dale Schumacher, M.D.

SAINT
MARY'S
HOSPITAL
our second century of caring

OCTOBER 22, 1987

HEALTH CARE FINANCING ADMINISTRATION
DEPARTMENT OF HEALTH AND HUMAN SERVICES
P.O. BOX 26676
BALTIMORE, MARYLAND 21201

ATTENTION: HSQ-148-GNC

RE: HCFA MORTALITY DATA LISTING
MEDICARE PROVIDER NO. 230077

TO WHOM IT MAY CONCERN:

ANALYSIS OF HCFA MORTALITY DATA LISTING

A TOTAL OF 236 MEDICARE PATIENTS ADMITTED TO ST. MARY'S HOSPITAL DIED WITHIN THIRTY (30) DAYS OF ADMISSION. THE DATA REFLECTS THAT 189 PATIENTS EXPIRED WHILE THE PATIENTS WERE HOSPITALIZED AND FORTY-SEVEN (47) EXPIRED AFTER DISCHARGE.

ST. MARY'S HOSPITAL VERIFICATION

ST. MARY'S HOSPITAL HAS VERIFIED THAT A TOTAL OF 192 PATIENTS EXPIRED IN THE HOSPITAL FROM THE POPULATION LISTED ON THE HCFA PATIENT LISTING. ONE PATIENT COULD NOT BE IDENTIFIED AS BELONGING TO ST. MARY'S POPULATION. FORTY-THREE (43) PATIENTS COULD NOT BE VERIFIED AS EXPIRING OUTSIDE THE INSTITUTION. HOWEVER, BASED ON THE DISCHARGE DIAGNOSES AND DISPOSITION, THERE WERE TWENTY-TWO (22) CANCER PATIENTS IN THE TERMINAL PHASE OF THE DISEASE PROCESS. THIRTEEN (13) PATIENTS HAD MULTIPLE DISEASE ENTITIES AFFECTING BODY SYSTEMS, ALL OF WHOM WERE OVER THE AGE OF SEVENTY-ONE. EIGHT (8) PATIENTS OF THE POPULATION WERE ABOUT SEVENTY YEARS OF AGE WITH HIGH RISK FACTORS OF CEREBROVASCULAR ACCIDENT, CHRONIC HEART DISEASE AND PULMONARY DISEASE.

830 South Jefferson Avenue ■ Saginaw, Michigan 48601 ■ (517) 776-8000
A Daughter of Charity Hospital

ST. MARY'S HOSPITAL RENDERS THE FOLLOWING SERVICES:

CANCER TREATMENT CENTER
BURN CENTER
NEUROSURGICAL SERVICES
CARDIOVASCULAR SERVICE (INCLUDING CARDIAC CATHETERIZATION AND OPEN HEART PROCEDURES)
TRAUMA

RESPECTIVELY SUBMITTED,

Edward Cook

EDWARD COOK
PRESIDENT AND
CHIEF EXECUTIVE OFFICER

ENCLOSURES: WORKSHEET 1 - ANALYSIS OF REPORTING ERRORS
WORKSHEET 2 - CORRECTION OF ERRORS

MEDICARE PROVIDER NUMBER: 230077

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital	
	In-hospital	Post-hospital	In-hospital	Post-hospital *
CA -- Cancer	25	12	15	22
CE -- Cerebrovascular Accidents	15	4	17	2
GC -- Gastrointestinal Catastrophes	8	0	4	0
GI -- Gastrointestinal Disease	8	6	10	0
GU -- Urologic Disease	2	1	3	0
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	18	1	19	0
HM -- Severe Chronic Heart Disease	28	1	27	0
HS -- Severe Acute Heart Disease	27	1	24	4
ME -- Metabolic/Electrolyte Disturbances	6	2	6	0
OP -- Orthopedic Disorders	1	0	1	0
PN -- Pulmonary Disease	13	7	18	2
RN -- Renal Disease	3	0	3	0
SE -- Sepsis	1	0	0	0
TR -- Severe Trauma	5	0	5	0
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	29	12	40	13
Total -- All Categories	189	47	192	43
	(236)		(235)**	

* BASED ON DISCHARGE DIAGNOSIS

** ONE PATIENT NOT IDENTIFIED AS BELONGING TO ST. MARY'S POPULATION.

MI 191.2

WORKSHEET 2: CORRECTION OF ERRORS MEDICARE PROVIDER NO. 230077

PATIENT ID NUMBER (HIC)	SURNAME	DIAG. CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH	PRINCIPAL DIAGNOSIS	PRINCIPAL PROCEDURE	COMMENTS
[redacted]		CA	068	M	01/02/86	01/03/86	01/03/86	1890		AGE IS 066
		CA	068	M	02/21/86	02/24/86	02/24/86	1629		AGE IS 067
		CA	078	M	12/07/86	12/27/86	12/27/86	1532	4575	AGE IS 075
		CE	065	F	08/07/86	08/07/86	08/07/86	431		AGE IS 063
		01	071	F	02/16/86	02/23/86	02/28/86	5711		DIED 02/23/86 *
		HM	067	F	01/13/86	01/21/86	01/20/86	4280		DIED 01/21/86 **
		HL	071	F	06/26/86	07/01/86	07/01/86	42789		AGE IS 070
		HM	071	F	01/28/86	01/29/86	01/29/86	4280		AGE IS 075
		PN	063	F	12/05/86	12/17/86	12/31/86	4151	8867	DIED 12/17/86 *
		PN	089	F	07/17/86	07/28/86	08/03/86	486		AGE IS 090
		PN	087	F	02/03/86	02/07/86	02/12/86	486		AGE IS 086
		RN	092	F	01/07/86	01/22/86	01/22/86	5849		AGE IS 082
		UN	079	F	07/15/86	07/15/86	07/16/86	9964		DISCH. 07/16/86
		UN	075	M	09/28/86	10/24/86	10/28/86	4350		DIED 10/24/86 *
		UN	068	M	06/04/86	06/09/86	06/26/86	4331		ADM. 06/22/86 DISCH. 06/29/86 DIED 06/29/86

NOTE: THE FOLLOWING PATIENT WAS NOT IDENTIFIED AS ONE OF ST. MARY'S PATIENTS:

[redacted]		HS	079	F	02/08/86	02/09/86	02/09/86	4100		

* DIED AT ST. MARY'S HOSPITAL

** DO NOT KNOW IF HCFA COUNTED THIS AS POST-HOSPITAL DEATH

MI 191.3

October 26, 1987

HOSPITAL ID CODE 23-0205

Out of the cardiac deaths (i.e. HS & HM), three of these patients were admitted with different diagnoses (i.e. one with leukemia, one with GI bleed and one with anemia). Three others arrested twice and were rescusitated before admission (NOTE: One of these had other complicating and/or combined conditions, including all of the following: cancer, chronic renal failure, pneumonia, hematuria, GI bleed, bacterimia and suspected pulmonary emboli).

All HS & HM patients had multiple diagnoses.

Two of the HS & HM were transferred here from another facility. Several patients were admitted previously during the year. Standish Community Hospital has a three-bed, active Coronary Care Unit under the direction of a certified cardiologist. Severe cases of chronic heart disease are referred here for treatment from surrounding facilities because of our special unit and active cardiologist.

-One patient [redacted] was listed as being admitted with dehydration. This patient had severe dehydration, pneumonia and upper GI bleeding.
-One patient [redacted] was listed with a diagnosis of anemia. The patient had upper GI bleeding (i.e. 5789).
-There is an insignificant number of patients in each category in order to draw any significant conclusions from the data.

AUTHORIZED SIGNATURE:

James J. Polonis
Chief Executive Officer
Standish Community Hospital, Inc.

TAWAS ST. JOSEPH HOSPITAL
200 HEMLOCK STREET, P.O. BOX 659
TAWAS CITY, MICHIGAN 48764-0659
(517) 362-3411
Office of the President

October 23, 1987

Mr. Harvey Brook
Healthcare Financing Administration
Hospital Mortality Information
Baltimore, Maryland 21207

Dear Mr. Brook:

Tawas St. Joseph Hospital lcoated in Tawas City, Michigan, wishes to make the following public comments on the mortality data released by HCFA for this hospital.

1. HCFA's data states that in the 16 categories there were 103 deaths in 1986. Of these, 32 which is equal to 31%, happened after the date of discharge and we have no means by which to verify either the legitimacy of that death or the cause.

2. Based on our records, 37 or 35.9%, of the 103 deaths, were patients who had co-existing diseases which were in themselves potentially death causing.

3. Of the 71 patients who died at Tawas St. Joseph Hospital, 41 or 57.7% were "no codes". No codes at Tawas St. Joseph Hospital means that no extraordinary resuscitative efforts will be made on the patient. This decision is mutually reached by family, patient and physician based on the nature of the disease and the quality of life potential.

4. Based on the following three points, Tawas St. Joseph Hospital questions the validity of the data HCFA has used.
   A. Of the 103 deaths listed, we have records of at least four of these patients having admissions to this hospital after the date of last admission as listed by HCFA.
   B. One patient was transferred alive to another hospital.
   C. Two patients which are listed as a low risk heart disease, in fact, had extremely acute coronaries as a reason for their admission.

Sincerely,

Michael L. Jones
President

mh

TRAVERSE CITY OSTEOPATHIC HOSPITAL
550 Munson Avenue, Traverse City, Michigan 49684 (616) 922-8400

October 27, 1987

Department of Health & Human Services
Health Care Financing Administration
The Administrator
Washington, D.C. 20201

Dear Sir:

Traverse City Osteopathic Hospital supports the public right to know hospital mortality rates. As the data indicates, we are well within the anticipated rates for all categories.

It is important to point out that there are limitations to the study for three basic reasons. First, it is confined to the Medicare patient population only, and does not include all other patients under the age of 65 years of age. For example, Sepsis, a high risk category for mortality, the rate dropped from 71% to 25% when all patients with this diagnosis were included. Another high risk category, Gastrointestinal Catastrophes, dropped from 25% to 7% when the total patient population was included.

Secondly, the study includes deaths within 30 days of admission and is not confined to patient deaths at the hospital. Twenty-six percent (26%) of the deaths listed for this hospital occurred after discharge, some as late as 20 to 25 days later. An unknown number of variables may have contributed to these deaths.

Third, there is no provision in the HCFA study for severity of illness. The study does not address any of the other complicating health problems that would be classified as secondary, but contributing factors.

Finally, the data is further limited by including only the last admission for the patient during 1986 rather than including all Medicare admissions for each category for the year.

We appreciate the opportunity to offer our comments. Thank you.

Hospital Medicare Number: 230228

UNIVERSITY OF MICHIGAN MEDICAL CENTER

The University of Michigan Hospitals
Ann Arbor, Michigan 48109-0472

John D. Forsyth
Executive Director
(313) 764-1505

26 October 1987

William L. Roper, M.D.
Administrator,
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
6325 Security Boulevard
Room 2D2 Meadows East Building
Baltimore, Maryland 21207

Dear Dr. Roper,

The HCFA data consist of the overall University of Michigan Hospitals mortality rate for Medicare patients treated during 1986 due to all causes and the rates for sixteen specific sub-categories and a seventeenth unlisted category consisting of "all other". The HCFA methodology produced a range of predicted mortality rates based upon the influence of age, sex, the number of prior hospitalizations within the year, whether the patient was transferred from another hospital and the presence of a single comorbid condition. Mortality was defined as death within 30 days of admission to the hospital and included deaths that occurred outside of the hospital subsequent to discharge. The methodology and weighting of these variables have not been disclosed by HCFA but are said to represent the expectation of an "average" hospital treating an "average" patient population. Because this is seldom the case, the range of predicted mortality rates is quite wide but is based on the statistical presumption that it includes ninety-five percent of all possibilities. The intervals are based upon the assumption that the actual values are distributed normally around the mean. The sixteen subcategories are divided into ten groups considered to be "high risk", six "low risk" categories and a seventeenth unclassified "all other" category. The data for the University of Michigan Hospitals provided by HCFA are as follows:

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	3,504	9 %	8 TO 14 %
CA - CANCER	432	19 %	22 TO 36 %
CE - CEREBROVASCULAR ACCIDENT	51	24 %	17 TO 43 %
EY - OPTHALMOLOGIC DISEASE	280	0 %	0 TO 3 %
GC - GASTROINTESTINAL CATASTROPHES	56	20 %	9 TO 31 %
GI - GASTROINTESTINAL DISEASE	185	5 %	3 TO 12 %
GU - UROLOGIC DISEASE	96	3 %	1 TO 13 %
GY - GYNECOLOGIC DISEASE	36	0 %	0 TO 25 %
HL - LOW-RISK HEART DISEASE	314	8 %	3 TO 9 %
HM - SEVERE CHRONIC HEART DISEASE	103	23 %	15 TO 32 %
HS - SEVERE ACUTE HEART DISEASE	119	20 %	27 TO 46 %
ME - METABOLIC/ELECTROLYTE DISTURB	36	6 %	4 TO 31 %
OP - ORTHOPEDIC DISORDERS	186	2 %	0 TO 5 %
PN - PULMONARY DISEASE	146	23 %	13 TO 28 %
RN - RENAL DISEASE	76	13 %	4 TO 33 %
SE - SEPSIS	19	58 %	22 TO 66 %
TR - SEVERE TRAUMA	34	24 %	4 TO 27 %

The overall data were verified by Medical Information Department and are essentially correct. HCFA data are based upon review of 6.5 million acute hospital inpatient admissions in 1986 which is a subset of the approximately ten million such Medicare admissions. Patients who were admitted more than once during the year were excluded and patients admitted to another hospital after being treated at and discharged from the University of Michigan Hospitals were likewise excluded. The data set represent only that portion of patients whose last admission was to the University of Michigan Hospitals and who died within thirty days after admission, whether still in hospital or subsequent to discharge but excludes patients who died after 30 days whether in or out of the hospital. Also, patients transferred to an exempt psychiatric or rehabilitation hospital or to such units in another acute care hospital or transferred to a Veterans' Administration Hospital are excluded from the data analysis.

Overall, there were 3,504 Medicare patients treated at University of Michigan Hospitals and they experienced a low mortality rate of nine percent (range - 8 to 14%). This extrapolates to approximately 315 patients which coincides with a count of 319 verified by the Medical Information Department. The difference is easily attributed to the rounding of numbers which was performed by HCFA. Among the sixteen categories, it can be seen that two were below the predicted range, two had a 0% mortality, and no category was above the predicted range. Six categories were judged to be at the low end of the range and included CE - Cerebrovascular Accidents; GI - Gastrointestinal Disease; GU - Urologic Disease; GY - Gynecologic Disease; ME - Metabolic/Electrolyte Disturbances; and OP - Orthopedic Disorders.

The six remaining categories were judged to be in the mid to high end of the range and are as follows: GC - Gastrointestinal Catastrophes, 20% mortality (Range 9 to 31%); HL - Low Risk Heart Disease, 8% mortality (Range 3- 9%) HM - Severe Chronic Heart Disease, 23% mortality (Range 15-32%); PN - Pulmonary Disease, 23% mortality (Range 13 to 28%); SE - Sepsis, 58% mortality (Range 22 to 66%) and TR - Severe Trauma, 24% mortality (Range 4 to 27%).

Further analysis was confined to the six mid to high categories.

Overall, Medicare admissions to the University of Michigan Hospitals during the year 1986 comprised twenty-one percent of all admissions. However, twenty-four percent of all Medicare admissions were transfers from another acute care hospital. In this group of 315 patients who died, ninety-seven had been transferred from another acute care hospital and nine from a skilled nursing facility, totalling 106 patients (or thirty-four percent), which represents a significantly larger number of Medicare patients transferred to University of Michigan Hospitals during 1986.

Further analysis provided by the Michigan Hospital Association indicates that all six of the University of Michigan Hospitals mid to high mortality rate subcategories had a percentage of at least one HCFA comorbidity, which in all instances, was greater than the statewide rate for that category.

The Michigan Hospital Association data are divided into six age groupings and in the six medium or high mortality rate subcategories stratified by age, the percent of University of Michigan Hospitals patients exceeded the statewide age percentage in thirty-one of the the thirty-six possible groups (i.e., six age groups times six mid to high University of Michigan Hospitals mortality rate subcategory).

The HCFA analysis considered the presence or absence of a single comorbid condition. Analysis of the more comprehensive data provided by Medical Information Department reveals the following: in the six mid to high mortality subcategories, more than two comorbid conditions were documented in ninety percent of the eleven deaths in the Gastrointestinal Catastrophe category; seventy-nine percent of the twenty-five deaths in the Low Risk Heart Disease category; ninety-four percent of the twenty-three deaths in the Severe Chronic Heart Disease category; ninety percent of the thirty-three patients who died in the Pulmonary Disease category; ninety-one percent of the nineteen deaths in the Sepsis category and eighty-three percent of the eight patients who died in the Trauma category.

It is clear that the actual mortality rate overall and in ten of the sixteen subcategories are at the low end or below the predicted range, or zero. Further, the six subcategories that are within the predicted range, (but are at the mid or high end of the range) reflect the atypical patient population cared for at the University of Michigan Hospitals with a higher than statewide incidence of single comorbidities, age and an extraordinarily large percentage of patients who experienced two and frequently more than two comorbid factors. Additionally, the HCFA methodology does not consider all comorbid conditions and because of HCFA coding conventions, all twenty-five patients placed into the low risk heart disease category, if all comorbid conditions had been considered, all would have been categorized as severe chronic heart disease.

Nevertheless, with or without this additional information, the University of Michigan Hospitals' mortality rates for the care of Medicare patients during 1986 are commendable. We are pleased that HCFA has recognized the difficulty inherent in the interpretation of raw mortality data and has attempted to account for the atypical distribution of patients to hospitals such as the University of Michigan Hospitals which receives a disproportionate share of patients transferred from other acute care institutions, with a dramatically higher number of comorbid conditions affecting outcome. Similarly, the mortality rate for cancer patients, which is below the predicted range, reflects referral back to originating institutions of patients with advanced neoplasms who do not die at the University of Michigan Hospitals.

It is important to understand the limitations inherent in assessing quality of care. The HCFA methodology did not consider severity of illness indicators because currently there is no generally accepted, valid method to differentiate the severity or the stage of a patient's illness at the time he or she receives treatment at a particular institution. Mortality is certainly the most significant adverse outcome and may indeed reflect the

quality of care provided but is heavily influenced by the stage of the disease and its severity when treated at a particular institution. Mortality rates are important and helpful but must be viewed in the context of the stage of disease existing in the patient treated. A mortality rate higher than predicted does not equate to poor quality treatment, and a lower than expected mortality rate does not define high quality care. These data require review and interpretation and can point to areas that require further quality assurance review and should be viewed as helpful guides to such review activities. These issues have been recently noted by Luft and Hunt (Evaluating Individual Hospital Quality Through Outcome Statistics. JAMA 255:2780-2784, May 1986.)

The techniques used by HCFA to establish the predicted mortality ranges have not been fully revealed nor have they ever been evaluated or validated by others. Despite the limitations of the methodology, the University of Michigan Hospitals is pleased with these published results, particularly in view of the significantly greater presence of comorbid conditions, the older patient population, and the inability to include a severity measure in such calculations. These data will undergo further review as part of the comprehensive Quality Assurance activities conducted by the Office of Clinical Affairs. Such data will complement the continuing assessment of the patient quality of care through the tracking of compliance with established standards and the monitoring of unexpected adverse patient events that are not felt to be a natural consequence of the patient's disease, condition or the procedures undertaken in his or her care. The University of Michigan Hospitals Quality Assurance program assesses adverse trends, specific identified problems, and will continue to encourage and focus productive communication among the professional staff to examine the quality of care independent of the requirements for accreditation by the Joint Commission, certification by third parties, other reimbursement requirements, or the Department of Health.

The assessment of quality is an imprecise technique but has been generally defined by the evaluation of structure, process, and the outcome of diagnosis and treatment. The Quality Assurance activities of the University of Michigan Hospitals encompass all three general elements to provide a balanced assessment recognizing that this is the existing level of expertise relative to this complex endeavor. It is obvious, therefore, that focusing solely on outcome measures can provide only a partial overview of the quality of patient care provided at an individual institution. However, this does not detract from the critical importance of outcome measures. They cannot be utilized alone, and it would be particularly inappropriate to attempt to draw comparisons between institutions based on this single criterion. Continued monitoring of process audits and structure will be utilized to focus attention upon areas requiring further review, such as is the case in assessing outcome data. The quality assurance activities of the University of Michigan Hospitals continually monitor and evaluate high risk and frequently performed diagnostic and therapeutic interventions. Additionally, there is ongoing assessment of unexpected occurrences (i.e., complications and deaths) as well as service-specific quality measures.

The efforts of the Health Care Financing Administration to further refine the meaning of mortality rates as a measure of quality are commendable. The limitations inherent in dealing with the enormous national data set and the inability to provide a useful measure of disease stage or severity will continue to hinder such efforts and necessitates restraint in the interpretation of the data and comparison of institutions who care for dissimilar groups of patients. This is dramatically exemplified by the patient care population treated at the University of Michigan Hospitals.

Despite these inherent limitations, we are pleased with the current set of mortality statistics and believe that they reflect the superior care provided to our patients.

Sincerely,

John D. Forsyth
Executive Director

JDF/SML/lms
0690Y

Evaluating Individual Hospital Quality Through Outcome Statistics

Harold S. Luft, PhD, Sandra S. Hunt, MPA

• **Case abstract data are routinely collected by hospital abstracting services, peer review organizations, and some state agencies. These data have proved invaluable in the analysis of patterns of performance across large numbers of hospitals and have shown, for example, the inverse relation between diagnosis- or procedure-specific volume and outcome. Routinely collected data also appear to be an attractive means for identifying hospitals, and perhaps physicians, with particularly good or poor outcomes for their patients. Unfortunately, problems of small numbers of patients and relatively low rates of poor outcomes make it difficult to be confident in the identification of individual performers. Recent data for cardiac catheterization patients are used to illustrate this problem.**

(*JAMA* 1986;255:2780-2784)

THE QUALITY of care in hospitals has traditionally been evaluated through the review of individual cases. While such an approach allows for the consideration of the clinical complexity presented by each patient, case review is time-consuming and expensive and does not allow a broad overview of the patterns of care across a large number of patients. The development of computerized case abstract files makes it possible to examine selected information for not only all patients in a particular hospital, but also from large numbers of hospitals. Several abstracting services, such as the Commission on Professional and Hospital Activities (CPHA) and McAuto, collect data from over 1,000 hospitals; the peer review organizations (PROs) will be collecting data on all Medicare patients; and some states, such as California, New York, Massachusetts, and Maryland, have mandatory collection of data on all discharges.

Routinely collected case abstract data have proved invaluable for certain types of research that focus on patterns of performance across hospitals. For example, a growing body of research indicates that patient outcomes are better, using both measures of morbidity and mortality, in hospitals having higher volumes of patients with the particular procedure or diagnosis.[1-7] This observation has led to the suggestion that policies be developed to encourage patients to be treated in hospitals with high volumes. Not all high-volume hospitals have good outcomes, however, so it will be necessary to identify particular hospitals with better than average performance. Preferred provider organizations and Medicaid programs such as California's have already established contracts with selected hospitals and channel their enrollees toward those hospitals.[8] To date, these contracts have not focused on patient outcomes, but quality has been at least a secondary consideration. Even without active efforts to encourage regionalization, case abstract data can be used to provide consumers with uniform data on hospital outcomes. The Department of Health and Human Services has announced that the PRO data on hospital-specific outcomes for Medicare patients must be made publicly available (*New York Times*, April 16, 1985, sect II, p 20). There have already been controversial instances in which similar data have been used in public settings to criticize specific hospitals and physicians for allegedly poor outcomes[9,10] (*Washington Post*, Aug 13, 1982, p 1; *Los Angeles Times*, March 12, 1982, p 1).

For editorial comment see p 2801.

While case abstract data may be adequate for research on outcomes across a large number of hospitals, and highly significant statistical relationships can be recognized, such data are often inadequate for the identification of individual hospitals as having particularly good or poor outcomes. One reason is the inherent variability in outcomes across patients even with similar diagnoses and treatments, coupled with the relatively low rate of adverse outcomes and small numbers of patients with a particular diagnosis or procedure seen in any one hospital. When hundreds of hospitals and thousands of patients can be included in the study, much of the random variation can be ignored as unexplained "noise." When the focus is just on outcomes in hospital A, however, much of what is seen is probably random variation. To illustrate this problem, this article utilizes case abstract data for patients undergoing cardiac catheterization in 1982 in 151 hospitals. The in-hospital death rate for these patients is about 1%, a figure about in the middle of the range for procedures and diagnoses. The number of patients undergoing catheterization in particular hospitals is relatively high, reducing the problem of statistical variation and making our presentation of the problems somewhat conservative. It will be shown that, while a strong inverse relation exists

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Table 1.—Distribution of Hospitals by Results for Patients Undergoing Cardiac Catheterization

Probability That Observed Outcomes Are What Would Be Expected Given Case Mix*	Volume (Patients/yr)					
	Very Low (1-200)	Low (201-400)	Medium (401-500)	High (501-750)	Very High (>750)	Total
Outcomes much better than expected						
<.025	0	1	1	1	5	8
.025-.050	0	1	1	0	3	5
.051-.100	1	3	1	2	2	9
.101-.500	11	22	9	11	8	61
.501-.900	9	14	2	10	4	39
.901-.950	3	2	1	0	0	6
.951-.975	1	3	0	2	0	6
Outcomes much worse than expected						
>.975	4	3	4	1	3	15
Total	29†	49	19	27	25	149

*For each hospital, the probability is calculated using the binomial distribution that the observed number of deaths would occur given the number of patients and the mortality rate expected based on the age and diagnosis of the patients.

†Two hospitals, with one and two patients each, are excluded.

Table 2.—Characteristics of Selected Hospitals

Hospital	No. of Patients	No. of Cardiac Catheterization Deaths	Ratio of Observed/ Expected Deaths	Expected Death Rate	Probability	No. of Beds	No. of Neighboring Hospitals	No. With Catheterization Laboratories	Medical School Affiliated
A	70	6	6.261	0.0137	.99995	100	0	0	No
B	161	24	6.179	0.0241	.99999	200	26	12	No
C	423	1	0.163	0.0145	.01493	500	7	6	No
D	474	0	0.000	0.0051	.08877	300	8	2	No
E	1,036	27	1.631	0.0159	.99403	600	29	7	Yes

between mortality and volume for these patients, the identification of hospitals with significantly better or worse than average outcomes is quite difficult. The last part of the article discusses the application of the approach to categories of patients with varying volumes and rates of adverse outcomes.

METHODS

The data for this study were derived from the Professional Activity Studies of the CPHA of Ann Arbor, Mich. All 757 hospitals that subscribed to the system for the entire year of 1982 and that were also respondents to a national Survey of Specialized Clinical Services (SSCS) were included. Only 151 of the 757 hospitals in our sample reported having a cardiac catheterization laboratory, and we excluded hospitals reporting catheterizations without having a laboratory. (The 1982 SSCS was sent to all US community hospitals and had a response rate of 66%. While small hospitals were somewhat less likely to respond to the SSCS, there were no other significant response biases.)

Patient records were excluded at the outset if data were missing on age, sex, discharge status, or length of stay. All data were aggregated to the hospital level, and identifiers were removed by the CPHA. Differences in case mix across hospitals were measured by developing a risk-factor matrix based on characteristics known to be associated with differential mortality rates. There were 12 cells (age 35 to 49, 50 to 64, and more than 64 years, dysrhythmia [*International Classification of Diseases, Ninth Revision* (*ICD-9*) 427], heart failure [*ICD-9* 428], any other single diagnosis [such as renal failure], and any multiple diagnoses). Patients were allocated to the appropriate cells, and cell-specific death rates were calculated. An expected death rate for each hospital was derived by summing over all cells the national cell-specific death rate times the proportion of patients in the hospital falling into each cell. This indirectly standardized mortality rate, or expected death rate, is what would be anticipated if the hospital achieved outcomes equivalent to the national average within each cell, adjusting for differences in case mix at the hospital level. Expected death rates were calculated for groups of hospitals in an analogous way.

Hospitals were grouped into volume categories according to the number of patients seen in a year within a procedure category. The cutoff levels for each category were determined after examining the distribution of hospitals by volume. Groups were formed with attention to having a reasonable number of patients in each category, and break points were designed to reflect natural patterns in the distribution. Outcome differences were not considered in the formation of groups. The volume categories were one to 200, 201 to 400, 401 to 500, 501 to 750, and more than 750 patients per year.

Analysis of the relation between volume and outcome used regression for the evaluation of trends. The binomial distribution was used for the examination of individual hospital outcomes.

RESULTS

There was a highly significant inverse relation between the in-hospital mortality rate, adjusting for case mix, and the number of patients undergoing catheterization in a hospital. The regression of the difference between actual and expected death rates on the log of volume of patients undergoing catheterization yielded a coefficient of −.013, with a P value of .0014. The log form captured the curvilinear relation, with substantially higher mortality rates observed at very low values. An inverse relation between volume and outcome for coronary arteriography was first reported by Adams et al in 1973.[11] While the causal relationship is still in dispute—that is, does higher volume lead to better outcomes or do better outcomes attract higher volumes—this does not affect the issue at hand.[12,5,12-15] The question posed in this article is whether such data can be used to identify particular hospitals as having significantly better or

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worse than average outcomes.

The binomial distribution was used to determine the likelihood that the number of observed deaths came from a distribution with a mean death rate equal to the expected rate in that hospital. For individual hospitals, the combination of low probabilities of death and low volumes means that one often expects to observe zero deaths. It is really the case that we have no useful information about how well the hospital is performing. In Table 1, only two hospitals met this criteria and were excluded. They had one and two patients, but the observance of no deaths conveys almost no information. (Both these hospitals reported having catheterization laboratories, although it is possible they began operation only at the end of the year.) The next two lowest-volume hospitals had 13 and 52 patients, with seven and three deaths, respectively, which was significantly worse than would be expected by chance.

Not surprisingly, there was substantial variability of performance within volume categories, but most hospitals were found in the center of the table, with probability values between .10 and .90, indicating that it would be inappropriate to identify them as being better or worse than average based solely on these outcome data. On the other hand, more hospitals appeared in the extreme categories than would be expected purely by chance, suggesting that some hospitals, in fact, have significantly better or worse outcomes. Among the 31 very-low-volume hospitals, four had death rates greater than what would be expected 97.5% of the time.

In contrast, one of the very-low-volume hospitals exhibited better than expected performance at usual levels of statistical significance. However, before one assumes that low-volume catheterization units cannot have better than average outcomes, one must recognize that the nature of the binomial distribution makes it an impossibility for such hospitals to record performances significantly better than expected. With a death rate of 1%, and with the maximum number of patients for this category (200), there would be only 2.0 deaths per year if the hospital's performance was just average, and we would expect to observe zero deaths about 14% of the time just due to random variation. Since fewer than zero deaths cannot be observed, it is impossible without more data to reliably identify low-volume hospitals as having better than average performance for patients with a low mortality rate.

In the intermediate-volume categories for cardiac catheterization, an occasional hospital was identified as having a better than expected outcome, but it is important to recall that some such observations occur by chance. On the other hand, five of the 25 very-high-volume hospitals had much better than expected performance. (The probability value of .025 means that fewer than one hospital [25×.025=.625] will, on average, present such good results merely by chance.) Yet, the fact that three very-high-volume hospitals had substantially worse than expected performance suggests that volume does not guarantee success.

The use of hospital-specific probabilities means that we can narrow our focus from all 151 hospitals to the 23 with results outside the .025 to .975 range or the 34 outside the .05 to .95 range. This does not mean that all hospitals with outcomes within the confidence interval are truly average performers, but that if one had to choose just a few hospitals for detailed review, it is the outliers that might best be put at the top of the list. Thus, one should view the finding of significantly "better" or "worse" than expected performance not as a final classification, but as a yellow flag that warrants investigation. As an example, Table 2 presents some characteristics of illustrative hospitals with significantly higher and lower than expected death rates, and some hospitals that might stand out to the casual observer. While in a real situation one would have substantially more data available about each hospital, even this limited information is instructive.

Hospital A has a death rate more than six times what would be expected based on its case mix, which is highly unlikely as a chance occurrence. The hospital has only 100 beds and is not affiliated with a medical school. It has no neighboring hospitals within 15 miles, and there may be few alternatives available within any reasonable distance. In contrast, hospital B is within 15 miles of 26 other hospitals, 12 of which have catheterization laboratories, so it is difficult to justify its similarly poor performance on the grounds of access. With 24 deaths among 161 patients, hospital B is likely to be quickly chosen for review, but what about hospital E with 27 deaths among 1,036 patients? This is a large, medical school-affiliated hospital, with many neighboring facilities, yet its death rate is almost two thirds above what would be expected based on its case mix, and given the large number of patients, such outcomes are extremely unlikely by chance. It may be the case, however, that careful review of the patients' charts, such as in a mortality and morbidity conference, will uncover risk factors that account for the deaths and are not included in the risk measure.

Probabilities are also useful in evaluating what may appear to be very favorable death rates. The performance of hospital D, with zero deaths among almost 500 patients, at first glance appears superior to that of hospital C, with one death among about 400 patients. However, hospital D's case mix is at substantially lower risk of death, and its zero death rate is not significantly different than what would be expected by chance.

COMMENT

These data demonstrate that for a procedure such as cardiac catheterization, one can use readily available case abstract data for a large sample of hospitals to discern an inverse relation between the number of patients treated in a hospital and their subsequent mortality. Recognition of such a relationship may suggest to some that patients should be directed away from low-volume institutions and toward high-volume hospitals. However, even if this were an appropriate conclusion for policy purposes, there is much more to consider than just volume. Some low-volume hospitals have quite good outcomes and some high-volume hospitals have outcomes significantly worse than expected for their case mix. In designing policies in response to these findings, it is important to distinguish policies that are appropriately directed toward groups or classes of

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Table 3.—Number of Deaths Consistent With a Statistically Significant Poor Outcome (at .10 Significance Level)

Expected Death Rate	No. of Patients						
	5	10	20	50	100	200	500
0.001	1*	1*	1*	1*	1*	2	2
0.005	1*	1*	1*	2	2	3	6
0.01	1*	1*	2	2	3	5	9
0.05	2	2	3	6	9	15	32
0.10	2	3	5	9	15	27	60
0.15	3	4	6	12	21	38	86
0.20	3	5	7	15	28	48	113

*Zero deaths are expected to be observed more than 90% of the time with these combinations of death rates and patients. The observation of one death is highly unlikely by chance.

Table 4.—Maximum Number of Deaths Consistent With Statistically Significant Good Outcomes (at .10 Significance Level)

Expected Death Rate	No. of Patients						
	5	10	20	50	100	200	500
0.001	NP*	NP	NP	NP	NP	NP	NP
0.005	NP	NP	NP	NP	NP	NP	0
0.01	NP	NP	NP	NP	NP	NP	1
0.05	NP	NP	NP	0	1	5	18
0.10	NP	NP	NP	1	5	14	40
0.15	NP	NP	0	3	10	23	64
0.20	NP	NP	1	5	14	32	88

*NP indicates not possible to show statistically significant good outcomes for this combination of expected death rate and volume level.

institutions and those directed toward individual hospitals.

The observation of a general relation between volume and outcome suggests that if there is no way to obtain better, more specific data, then volume may be a useful indicator for certain situations. For example, if general advice is to be given to the public about cardiac catheterization, it would not be inappropriate to mention that institutions with higher volumes generally have better outcomes than those with very low volumes of fewer than 200 procedures per year. Third-party payers seeking selective contracts may choose to negotiate only with high-volume centers, both because their outcomes in general are better and because even if low-volume centers have good results, it cannot be proved because of the wide confidence intervals. Similarly, hospital malpractice carriers might want to take volume into account in adjusting their premiums if they find that claims experience is related to volume. In each instance, the recommendations are based on general guidelines that are appropriate for probabilistic situations.

If one needs to refer a specific patient for a procedure, much more information than volume is usually available and should be used. For example, a certain physician or medical center having a particularly good reputation in the area may be recognized as being the place to go for extremely complicated cases. This implies that any strategy designed to influence existing referral patterns must proceed with caution in the identification of the preferred hospitals.

The situation is even more complex if one is undertaking a review of hospital performance to assess quality of care, such as is mandated for PROs. The inherent variability in patient outcomes means that death rates even several times the expected value may not be significantly different from the norm. More importantly, the observation of zero deaths may provide little useful information if the expected death rate is low and the number of patients small.

The data presented in this article refer to in-hospital death rates after cardiac catheterization, but the general observations apply to any outcomes with similar rates of occurrence. Similar analyses have been performed for other procedures and diagnoses. In general, if the rate of adverse outcomes is substantially higher than 1%, such as the 16% death rate for acute myocardial infarction, then it is easier to identify good or poor performance with some degree of statistical confidence. On the other hand, diagnoses and procedures with very high mortality rates often involve extremely ill patients for whom the underlying clinical factors dominate physician or hospital performance, and few hospitals have enough such patients to identify significantly better or worse results. However, one need not be limited to the analysis of mortality. Rates of postoperative complications, infections, or readmissions are similar to the range explored herein of about 1% to 15%.

It is inherently more difficult to identify better or worse than expected performance in hospitals with low volumes because the confidence intervals are so wide. This does not mean, however, that it is fruitless to monitor low-volume hospitals. For example, by pooling several years of data, one can accumulate enough patient observations to reduce confidence intervals to a useful range. Similarly, one may be able to pool patients undergoing related procedures while including controls for the risks of each procedure to increase the sample size.

Once the limitations of small numbers of patients and infrequent occurrences are recognized, there are still roles for routinely collected data in evaluating hospital outcomes. Third-party payers might choose to selectively contract only with hospitals providing outcome measures and to reject those with significantly poor results. Routinely collected data can also be used as an indicator of where more detailed case review is likely to uncover real problems. If abstracts are to be used as indicators, then it is appropriate to cast a wider rather than a narrower net, or, in statistical terms, it is perferable to have many false-positives at the first stage to minimize the number of false-negatives. Thus, Tables 3 and 4 identify for various combinations of volumes and probabilities the 80% confidence intervals instead of the more conventional 90% or 95% intervals. These

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are designed to be somewhat conservative, and therefore they identify the points that are above what would be expected by chance 10% of the time and below what would be expected by chance 10% of the time.

Table 3 shows the minimum number of deaths that would have to be observed to reject, with a 10% significance level, the null hypothesis that the outcome in a given hospital is not different from the expected rate. For example, if there is an expected death rate of 15%, such as for abdominal aortic aneurysm, at least six deaths would have to be observed among 20 patients to indicate significantly poor results at the .10 level. If only five deaths are observed, even though the calculated death rate of 20% is substantially above the expected rate of 15%, it is not statistically significant.

Table 4 shows the maximum number of deaths consistent with significantly good outcomes, again at the 10% level. For example, the observation of no deaths among 20 patients with a 15% expected death rate is likely to occur less than 10% of the time. The large number of cells labeled not possible indicates how difficult it is to identify a hospital or physician as performing significantly better than average even if no deaths are observed. For example, even a zero death rate is not significant for a hospital with 200 patients whose expected death rate is .01.

Even if a hospital is identified as having significantly better or worse than expected performance, one is not justified in either ordering champagne or demanding closure, because such results do occur by chance. Statistically significant results are not definitive, but should be interpreted as warning flags that require further investigation. Hospitals with significantly worse than expected performance should be selected for intensive chart audit or other appropriate quality review activities. Such a process or routine monitoring with feedback of results for institution-specific examination and review offers the potential for important improvements in quality.[16] Similarly, before policies are designed to channel patients toward specific hospitals with apparently better than expected outcomes, or before they are even publicly identified as good performers, it is important that other types of evaluations support the designation.

If precautions are not taken before acting on outcome statistics, average performers will occasionally be mistakenly identified as being either worse or better than they truly are. In the first instance, they will be incorrectly labeled as having worse than expected outcomes, and libel suits might ensue. In the second instance, patients may be inappropriately redirected toward hospitals with performance not truly better than average, and there may be some liability in this case for worse outcomes than would have occurred had the shift not taken place.

In spite of these statistical caveats, it is quite reasonable to use large data sets to examine general patterns of performance such as the relation between volume and outcome. Such results might be useful to malpractice carriers in rate setting or to third-party payers seeking to limit their negotiations to high-quality institutions. Furthermore, much of the problem identified in this article arises from the low death rate associated with most hospitalizations. If complications are considered, then it is possible to examine interhospital differences with smaller samples.

As the focus of attention shifts to the evaluation of individual hospital or even physician performance, much more attention needs to be paid to the unmeasured aspects of the cases; and less reliance should be placed on general patterns.

Hebel et al[10] have demonstrated how case abstract data can be used as the starting point in examining why a hospital appears to have a higher death rate than its neighbors. They begin with overall mortality, adjust for case mix and other factors, then narrow their focus to specific diagnostic categories. However, the shift from the general to the specific means that the number of patients quickly becomes very small. The inherent variability in patient outcomes, especially if one focuses on rare events such as death, means that statistical confidence becomes increasingly difficult to attain. It would help if attention were to shift to complication rates, both during hospitalization through charts and more detailed abstract review and after hospitalization through the analysis of insurance claims. Thus, while readily available data are a powerful and inexpensive guide, they can only be used to begin the process of evaluating performance of hospitals and physicians.

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October 26, 1987

William L. Roper, M.D., Administrator
c/o Health Care Financing Administration
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 20207

RE: West Shore Hospital, Provider Number 230060

Dear Dr. Roper:

Thank you for the opportunity to review the mortality information to be released publicly by the Health Care Financing Administration in December 1987.

West Shore Hospital has taken the opportunity to review this information, and has the following comment and suggestion:

1. One case, [redacted], was incorrectly listed as a post admission death.

2. It is recommended that the patients' severity of illness, general health status, and stage of illness at the time of presentation to the hospital be included in future studies.

The Mortality Committee of West Shore has and continues to function in cooperation with other Medical Staff committees, by reviewing all deaths which occur in the Hospital.

This concludes West Shore Hospital's comments on this information. In the event the information is revised prior to final publication and public distribution, West Shore Hospital would appreciate the opportunity to review and comment on the new information in advance.

Sincerely,

Burton O. Parks
Administrator

BOP:km

cc: Board of Trustees
Chief of Staff
Michigan Hospital Association

WESTLAND MEDICAL CENTER
2345 Merriman Road Westland, Michigan 48185-5375 (313) 467-2300

October 27, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
Department of Health and Human Services
P.O. Box 26684
Baltimore, MD 21207

RE: MORTALITY RELEASE
Medicare Provider No. 230098

Dear Mr. Roper:

INTRODUCTION. We have reviewed the mortality rate data that was sent for our hospital which is proposed to be released to the news media in December '87. This letter is our response and we ask that it become a part of the release. We have found that the data is flawed with errors which we will identify. With corrections to the data, Westland Medical Center (WMC) is within the range of predicted mortality rates.

UNIQUE PATIENTS SERVED. Many of our patients are low income and medically indigent patients and make up significantly more of our patients (40%) then at the average acute care hospital with more insured populations. Two-thirds of our patients are admitted from our Emergency Room. Generally the majority of these patients may be variously categorized as patients who:

- do not have insurance
- have been turned away from other hospitals
- have not had a family physician
- have had limited or no recent health care
- are much sicker than the average hospital admitted patient
- are often readmitted for failure to comply with health practitioner instructions
- may be less informed in matters of personal health.

In summary many of our patients tend to have an unusually large number of complicating or comorbid conditions which may cause our raw mortality rate to be toward the upper range in various categories. Even some of our patients with insurance are often those who do not have personal physicians and have chronic, untreated conditions suddenly requiring admission.

CONCERN. We are concerned that your organization desires to release this information. Mortality statistics are complex and do not necessarily reflect the patient population served, condition at admission, and other contributing causes of death which are involved. General conclusions based upon individualized patient situations tend not to be a good measure of outcome.

SPECIFIC CONCERNS WITH THE MORTALITY DATA AND METHODOLOGY.

1. The release will show WMC one percentage above the predicted range. Our review of the data shows inconsistent rounding of percentage rates, the number of deaths is incorrect and should reflect one less. Also, the data indicates 6 cases of renal disease with 4 last admission deaths for a 67% mortality rate. When these cases were reviewed, it was found that only 3 deaths occurred. Therefore, this mortality rate should have been 50% instead of 67% for that diagnostic category. It should be noted that WMC treats patients with end stage renal disease.

2. We are above the range in only one of the 16 categories, severe acute heart disease. Eleven of the 16 patients died giving us a mortality rate of 69% which was above your forecasted top of the range of 64%. Upon recent retroactive investigation of those deaths by independent physicians, we have confirmed that every patient received appropriate interventive procedures and adequate case management. Our review showed that 4 of the 11 patients were admitted with irreversible terminal heart disease. The other 7 patients had severe acute heart disease and significant comorbidities at admission.

3. The data comes from 411 paid Medicare claims during 1986 for last admissions as furnished by your Fiscal Intermediary (Blue Cross of Michigan). Our records show that during this period there were actually 780 Medicare admissions to WMC. This wide difference concerns us and is another example of insufficient data which may invalidate this information.

4. Other patient characteristics which should be accounted for to clearly understand cause of death include gender, age, comorbidities, severity of illness, transfer status and prior admissions. Hospitals that have certain services would tend to receive terminal patients which would explain a much higher mortality rate than another hospital which doesn't have these type of patients or which may only treat such patients in an early stage. For example, hospitalized cancer patients in a hospital with a hospice unit or renal inpatients in a hospital with end stage renal disease unit.

5. Many hospitals have a "no code" policy to not resuscitate terminal patients where they and/or their families have made such a request. Westland Medical Center Hospital honors these requests in an appropriate legal manner. Your data does not provide for this exception.

6. Sometimes patients have a high propensity for death on their last admission due to a variety of factors including severity of illness or injury. Sometimes the principal diagnosis at last admission may have no relationship to the actual cause of illness and death, because of comorbidities and external factors. Often the raw mortality rate principal by diagnostic category is not a clear indication of the cause of death.

7. The statistical format used is untested and not validated. In our opinion this is not appropriate for release until the data and criteria can be refined, substantiated by clinical research and accepted by the medical

profession.

8. Another concern over the methodology pertains to the criteria used of "deaths within 30 days of admission." For this lengthly period, deaths could be attributed to the hospital that, in fact, may be unrelated to the condition of the patient at discharge. For example, death by accident or improper management of a patient at home or post-acute care facility. Such mortality rates can be from pure statistical chance and are not an indication of hospital or physician performance.

INTERPRETATIVE COMMENTS. The complex untested statistical model used by the government is not easily understood by a non-technical audience and we fear the public may not read and understand the multiplicity of factors. We hope the public won't jump to a conclusion based on a headline or article as presented by the media. In our opinion, quality judgements can be made after reviewing information in individual patient medical records.

OBSERVATION. We also understand that the Veterans Administration hospitals were not included and we ask why they were excluded from this study and release?

CONCLUSION. A significant comment from the Michigan Peer Review Organization is that rarely do they find quality problems in relationship to mortality rates. Based on data errors, methodology and lack of valid interpretation, we are opposed to this type of release and the false assumption that it is related to quality.

Richard Lane

Richard Lane
Chief Executive Officer

dg

Beaumont®
William Beaumont Hospital Medical Administration
Royal Oak

October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Department of Health & Human Services
The Administrator
Washington, D.C. 20201

HCFA COMMENTS - ROYAL OAK
Medicare Provider No. 230130

Beaumont-Royal Oak is a 929 bed community teaching hospital in Southeastern Michigan. It has more than 700 Board Certified physicians on its active medical staff and supports 18 fully accredited residency programs.

The HCFA mortality rates for Beaumont Hospital, Royal Oak, fell within the predicted range in all categories. However, since the model has not yet been validated, this information should not be viewed as the sole indicator of quality of care.

Beaumont-Royal Oak already has an extensive internal Quality Assurance Program. As part of this program, every death that occurs in the hospital is routinely reviewed and evaluated as part of the medical staff quality assurance function. In a teaching hospital such as Beaumont, review of deaths is also an established facet of the academic training of young physicians. The HCFA mortality data will now be used as another measure within this program.

In addition to mortality review, Beaumont's Quality Assurance Program coordinates structured, ongoing, review of critical patient care services in all medical and administrative departments. Beaumont Hospital's Management, Medical Staff and employees are committed to continuous improvement in the quality of our patient care services.

Sincerely,

Federico Accari, M.D.
Corporate Medical Director

/vlt

3601 West Thirteen Mile Road Royal Oak, Michigan 48072-2793 (313) 288-8000

Beaumont®

William Beaumont Hospital **Medical Administration**
Royal Oak

October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Department of Health & Human Services
The Administrator
Washington, D.C. 20201

HCFA COMMENTS - TROY
Medicare Provider No. 230169

Beaumont-Troy is a 189 bed community hospital in Southeastern Michigan. It has more than 350 Board Certified physicians on its active medical staff.

The HCFA mortality rates for Beaumont Hospital, Troy, fell within the predicted range in all categories. However, since the model has not yet been validated, this information should not be viewed as the sole indicator of quality of care.

Beaumont-Troy already has an extensive internal Quality Assurance Program. As part of this program, every death that occurs in the hospital is routinely reviewed and evaluated as part of the medical staff quality assurance function. The HCFA mortality data will now be used as another measure within this program.

In addition to mortality review, Beaumont's Quality Assurance Program coordinates structured, ongoing, review of critical patient care services in all medical and administrative departments. Beaumont Hospital's Management, Medical Staff and employees are committed to continuous improvement in the quality of our patient care services.

Sincerely,

Federico Arcari, M.D.
Corporate Medical Director

/vlt

3601 West Thirteen Mile Road Royal Oak, Michigan 48072-2793 (313) 288-8000

WYANDOTTE
General Hospital

October 27, 1987

Health Care Financing Administration
Department of Health & Human Services
The Administrator
Washington, D.C. 20201

Re: Mortality Rates - Wyandotte General hospital

Dear Administrator,

Wyandotte General Hospital has reviewed the data contained in your September letter outlining our Hospitals Medicare Mortality rate.

The HCFA statistical report contained a few inaccuracies which need clarification in the final data release scheduled for December, 1987. These inaccuracies include:

1) For patients reported as expiring after discharge from Wyandotte General Hospital: a 25% error rate in actual death date was found in the HCFA mortality report vs the actual date of death as reported by the Hospital via the UB82.

2) The inclusion of one patient who expired after treatment in the exempt Rehabilitation Unit of Wyandotte General, this patient was to be excluded from the study.

3) Patients who were originally placed in a low risk sub-category, were subsequently reclassified into a high risk category identifying the diagnosis that actually contributed to the patient's death.

The Wyandotte General Hospital Medical Staff, for the past four years has performed 100% death review as one of the monitoring systems within the Quality Assurance Program.

It is hoped that comments pertaining to the accuracy of the statistical report will be noted as the reliably of the report itself depends upon the accuracy of the data.

Sincerely,

for Bruce L Nelson
John C. Fitch
Chief Executive Office
Wyandotte General Hospital

Thomas G. McDonald
Thomas G. McDonald, M.D.
Medical Staff President

HCFA/EXEC.SEC.
'87 OCT 28 PM 3:15

ZEELAND
COMMUNITY
HOSPITAL

October 23, 1987

Henry A. Veenstra
Administrator

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

We have thoroughly reviewed the mortality rate information compiled by the Health Care Financing Administration (HCFA) that is specific to Zeeland Community Hospital and found the following errors:

1) The patient's date of death was inaccurate in 13% of the cases listed.
2) In certain cases, the HCFA report indicates that patients expired after discharge; when in fact, these patients died while in the hospital.
3) The HCFA report failed to list eight Medicare patients who expired in the hospital within thirty days of admission during 1986.

At this time, Zeeland Community Hospital feels it is inappropriate to use the Mortality rate data as a basis for judging quality of care. Despite the fact that our hospital specific report reflects death rates well within the expected ranges in all categories, we feel that the errors in the raw data and the limitations in using mortality rates to judge quality of care preclude us from using them as a quality indicator. The limitations of using these mortality rates are apparent when you consider: 1) errors in the raw data; 2) the untested model used by HCFA in putting data together; 3) the fact that the data doesn't identify patient information related to severity of illness, general health, family history, etc; 4) the small number of deaths at this facility which would make statistical rates misleading.

Zeeland Community Hospital is committed to providing the highest quality of medical care. The medical record of every patient who expires at this hospital is thoroughly reviewed by a pathologist and discussed by our Medical Review Committee. The medical record provides specific information concerning each individual patient and thus is the best source to determine appropriateness and quality of care. After review of all Medicare patients who died at this hospital in 1986, our Peer Review & Quality Assurance Committees concluded that all patients had been appropriately treated. We feel that this type of ongoing internal quality assurance activity is more accurate and useful than HCFA's release of new mortality rates each year.

Thank you for the opportunity to address this important issue. We remain committed to providing the highest quality of care to all our patients and to engaging in review activities that assure we are achieving this goal.

Sincerely,

Henry A Veenstra

Henry A. Veenstra
Administrator

Detroit Osteopathic Hospital
AN AFFILIATE OF HORIZON HEALTH SYSTEMS

STATEMENT PREPARED BY DETROIT OSTEOPATHIC HOSPITAL
REGARDING HCFA MEDICARE MORTALITY DATA

Detroit Osteopathic Hospital (DOH), Medicare provider number 230150, is an acute-care, medium-size, inner-city hospital. It offers several specialty programs, such as the Detroit Heart Institute and the Artificial Kidney Center, to which other area hospitals refer patients. Accordingly, it is considered the premier referral center for osteopathic hospitals in the Detroit area.

In one category, Low-Risk Heart Disease (HL), DOH's mortality rate is on the high end of the predicted mortality rates. Five (5) of the thirteen (13) cases listed in this category were of such severity that they warranted open heart surgery. One of the limitations of the HCFA data is that severity of illness within the categories is not accounted for. A severe or high risk case may be coded as HL and unjustifiably raise the mortality rate for this category. High risk procedures were not taken into account when cases were classified by HCFA. If high risk procedures had been considered, the five (5) cases requiring open heart surgery would have been classified in a different group and the rate for low risk heart disease would be lower.

In all other categories, DOH's mortality rates were in the low to mid range of the predicted mortality rate; however, a review of hospital records pertaining to these categories reveal significant factors which influence the accuracy of the HCFA report.

One case is improperly placed in the Severe Acute Heart Disease category (HS) as the patient has had no admissions to DOH since 1977. The HS rate is thereby reduced by one case to 20% (from 27%) and the overall hospital mortality rate for Medicare patients in 1986 is reduced to 11.75%.

The Renal Disease category (RN) reflects a 66% transfer rate of end-stage cases from other hospitals to DOH for the special renal services it offers at its regional Artificial Kidney Center. These cases represented severe acute kidney failure as the result of other conditions with a high risk of mortality. They were transferred to DOH for symptomatic treatment on the artificial kidney. Likewise, all of the Urologic Disease (GU) patients who died were admitted for a urological problem precipitated or complicated by another serious illness.

As a general observation, HCFA assigns patients to its categories based on principal diagnosis which is the condition, after work-up, that prompted admission to the hospital. The cause of death may or may not be related to the principal diagnosis. In another example, the patient listed under the Orthopedic Disorders category (OP) was being treated for a bone infection and had a fatal heart attack while in the hospital. The DOH death rate for all categories contains at least twenty-six (26) deaths (or 25%) from causes other than the principal diagnosis listed.

12523 Third Avenue
Highland Park, Michigan 48203
313-252-4000

Three (3) of the nine (9) patients (or 33%) in the Pulmonary Disease category (PN) had a diagnosis of underlying lung cancer at the time of death. Interestingly, the code group for lung cancer which is most used by DOH, 162.0 - 162.9, was not listed as one to be picked up by the HCFA computer as a significant co-morbid condition. Therefore, all the DOH patients with underlying malignancy of trachea, bronchus and lung were inaccurately reported in the co-morbidity area of the study.

Another factor not considered in the HCFA study is the number of patients who die within hours of hospital admission. Many patients are admitted through emergency rooms, (outpatient departments), or by transfer from other acute-care facilities in extremely precarious condition. The hospital is required to sustain a life already in jeopardy. With reference to this precarious group, DOH had ten (10) deaths occurring within forty-eight (48) hours of emergent admission (or 10.7%).

Two additional findings which affect the accuracy of HCFA's presentation of DOH's mortality rates are:

1. Fifteen (or 14.2%) of the Medicare patients who were over 70 and who died at DOH were transfers from acute-care hospitals and nursing homes.

2. Nine (or 9%) of all cases who died after discharge from DOH cannot be verified as to the circumstances after discharge from DOH or the cause of death. Thus, we were unable to determine whether the principal diagnosis was related to the cause of death.

And, finally, the HCFA study presents mortality data on the last admission of Medicare patients to DOH in 1986. Therefore, only 885 of DOH's 5,682 total admissions from January to December 1986 (or 16%) are considered in the HCFA study. Besides not representing total admissions, the use of Medicare admissions distorts DOH's mortality rate because Medicare patients are older and generally more acutely ill. Forty-eight percent (48%) of the Medicare patients at DOH in 1986 were over 70 years old, and 7% were over the age of 85. The hospital stay of these patients was three (3) to four (4) days longer than other patient groups which demonstrates the severity of their illness.

According to the Federal Register, "the model remains simply one indicator of potential quality distinctions among hospitals." These statistics will vary each year depending on variables, many of which were not considered in the present HCFA study. Given the uncertainty of predicting death, this study is viewed and will be used as a report of the relationship between five patient characteristics and the risk of death, of which the validity and reliability is yet not proven.

Detroit Osteopathic Hospital has a Quality Assessment Program which includes a review of the care given to all patients who die during their hospital stay. This review is conducted by a committee of physicians who represent all specialties in the hospital. The information contained in the HCFA report will be used as is appropriate to supplement the mortality review function of this physician committee.

Following is an Analysis of Reporting Errors for DOH patients listed in the HCFA study. These changes are submitted per HCFA's request to insure accuracy of records. The highlighted data is what needs to be corrected.

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital	
	In-hospital	Post-hospital	In-Hospital	Post-hospital
CA	19	2	20	1
CE	5		5	
GC	2		2	
GI	3	2	4	1
GU	4		4	
GY	0		0	
HL	12	1	12	1
HM	4	2	5	1
HS*	4		3	
ME	2		2	
OP (Orthopedic Disorders)	1		1	
PN	8	1	7	2
RN	6		6	
SE	1		1	
TR		1		1
OP (Ophthalmalogic Disease)	0		0	
UN	18	7	21	4
Total - All Categories	89	16	93	11
		105		104

[redacted]

Respectfully submitted,

Chris Allen

Chris Allen
Vice President/Administrator

CA/em

Minnesota

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
A L VADHEIM MEMORIAL HOSPI TYLER MN 56178	MN-15 *	166	11	9-21	3	67	5-85	2	0	2-90	7	0	3-61	11	27	10-60	8	88	19-79	3	0	1-82	27	7	8-39
ABBOTT-NORTHWESTERN HOSPIT MINNEAPOLIS MN 55407	MN-16	3967	8	8-14	302	21	17-32	98	23	19-38	61	25	11-33	138	22	17-32	149	23	30-48	48	23	8-34	197	15	15-29
ADA MUNICIPAL HOSPITAL ADA MN 56510	MN-17 *	121	18	10-25	3	0	1-81	8	50	8-65	1	100	0-97	7	14	6-66	13	23	19-69	3	0	1-81	12	58	10-59
AITKIN COMMUNITY HOSP AITKIN MN 56431	MN-18	288	18	10-21	12	58	13-64	11	27	11-61	5	40	1-68	17	35	11-52	19	32	22-64	11	18	6-55	40	35	12-39
ALBANY COMMUNITY HOSPITAL ALBANY MN 56307	MN-19	94	10	8-23	8	0	2-57	7	29	7-67	7	0	4-62	2	0	0-90	3	100	9-90	2	0	3-91	18	0	6-43
APPLETON MUNICIPAL HOSPITA APPLETON MN 56208	MN-20 *	161	17	9-22	5	60	5-74	8	38	8-66	3	33	1-82	6	0	5-67	11	64	18-71	4	0	2-75	29	24	11-42
ARLINGTON MUNICIPAL HOSPIT ARLINGTON MN 55307	MN-21	130	19	10-25	11	36	10-60	5	40	8-77	1	100	1-97	11	9	6-54	10	40	14-69	9	22	2-53	12	25	8-56
ARNOLD MEMORIAL HOSPITAL ADRIAN MN 56110	MN-22 *	99	18	8-23	5	20	5-73	5	100	5-72	4	25	4-77	8	38	8-66	4	25	8-84	3	33	1-82	11	27	7-55
BERTHA MEMORIAL COMMUNITY BERTHA MINNESOTA 56437	MN-23 *	7	0	0-61	1	0	0-99	.	.		.	.		1	0	0-97	.	.		.	.		.	.	
BETHESDA LUTHERAN HOSPITAL SAINT PAUL MN 55101	MN-24 *	6	17	3-64	1	0	1-97	.	.		.	.		.	.		.	.					4	25	1-74
BETHESDA LUTHERAN HOSPITAL SAINT PAUL MN 55103	MN-25 *	1314	11	10-17	108	13	15-35	77	23	19-40	44	16	9-35	80	26	14-33	70	36	27-51	31	6	5-34	81	23	12-32
BUFFALO MEMORIAL HOSPITAL BUFFALO MN 55313	MN-26	322	13	8-18	22	9	7-42	14	7	9-54	12	17	6-52	23	35	10-44	21	29	20-60	10	0	2-50	36	25	8-35
CALEDONIA HEALTH CARE CENT CALEDONIA MN 55921	MN-27 *	56	14	6-25	2	100	4-92	2	50	2-90	.	.		6	33	4-67	3	67	8-90	1	0	0-97	6	0	1-62
CAMBRIDGE MEMORIAL HOSP CAMBRIDGE MN 55008	MN-28 *	622	11	9-17	37	30	13-43	32	31	17-48	15	20	5-45	36	36	13-41	24	21	23-61	35	9	8-37	57	18	13-36
CANBY COMMUNITY HOSPITAL CANBY MN 56220	MN-29	145	21	7-19	3	0	1-81	3	33	2-82	7	29	3-61	4	50	3-75	5	100	10-80	3	33	3-84	15	13	6-47
CASS LAKE PHS INDIAN HOSP CASS LAKE MN 56633	MN-30 *	33	6	4-27	1	0	0-97	3	33	5-85	.	.		1	0	0-97	.	.		2	0	0-94	3	33	2-81
CENTRL MESABI MEDICAL CTR HIBBING MN 55746	MN-31 *	803	12	9-17	50	10	11-37	35	26	15-45	19	11	9-47	38	29	10-37	47	45	26-55	33	21	11-42	74	28	11-31
CHIPPEWA CO-MONTEVIDEO HOS MONTEVIDEO MN 56265	MN-32 *	298	16	10-20	26	46	16-52	13	54	10-56	9	11	5-58	21	29	11-48	15	27	17-63	6	0	3-66	26	23	7-38
CHISAGO LAKES HOSPITAL CHISAGO CITY MN 55013	MN-33 *	271	14	9-20	21	14	5-40	18	39	15-56	8	25	1-55	11	27	7-55	21	29	21-62	10	30	6-57	30	20	10-41
CLEARWATER CO MEMORIAL HOS BAGLEY MN 56621	MN-34 *	174	25	13-26	9	33	12-68	11	82	11-62	8	25	5-60	14	43	9-53	7	71	9-71	11	36	7-57	37	22	11-39
COMFREY HOSPITAL INC COMFREY MN 56019	MN-35	63	14	7-26	3	67	3-84	3	0	2-82	2	100	3-91				5	80	14-84	1	0	0-99	6	17	3-65
COMMUNITY HOSPITAL CANNON FALLS MN 55009	MN-36 *	147	18	11-24	4	0	4-77	6	33	6-70	3	0	0-83	16	31	12-55	9	89	16-74	6	33	2-65	12	33	11-60
COMMUNITY HOSPITAL LUVERNE MN 56156	MN-37 *	311	12	12-22	25	24	13-49	24	38	16-52	15	7	4-44	31	19	12-42	14	29	22-71	5	0	1-68	28	7	10-42
COMMUNITY MEM HOSP DEER RIVER MN 56636	MN-38	129	10	8-21	5	20	3-70	5	0	6-74	6	17	2-63	7	71	5-64	5	20	11-81	3	0	0-85	24	17	9-42
COMMUNITY MEM HOSP INC SPRING VALLEY MN 55975	MN-39	137	12	10-23	12	83	17-68	9	33	12-68	1	0	0-99	11	9	6-54	2	0	8-96	12	0	3-48	11	9	5-52
COMMUNITY MEMO HOSP WINONA MN 55987	MN-40	1011	14	10-17	53	38	15-41	55	33	17-41	37	8	8-35	69	25	15-35	46	41	26-55	45	22	9-35	99	22	12-29

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
A L VADHEIM MEMORIAL HOSPI TYLER MN 56178	.	.		1	100	2-98	.	.		.	.		18	0	1-31	9	11	2-51	1	0	0-100	13	0	0-41	15	0	1-35
ABBOTT-NORTHWESTERN HOSPIT MINNEAPOLIS MN 55407	22	14	11-53	15	20	21-69	75	7	4-19	100	0	0-11	292	3	3-10	129	5	2-13	41	0	0-77	744	4	3-7	304	1	0-4
ADA MUNICIPAL HOSPITAL ADA MN 56510	2	50	5-93	1	0	0-97	2	0	2-89	1	0	0-100	20	5	1-29	3	0	0-98	3	33	1-81	12	8	0-46	5	0	0-92
AITKIN COMMUNITY HOSP AITKIN MN 56431	5	20	5-76	2	50	3-91	5	20	1-67	.	.		29	3	1-22	3	33	0-83	3	0	0-100	42	2	1-17	10	0	0-93
ALBANY COMMUNITY HOSPITAL ALBANY MN 56307	1	0	0-98	.	.		.	.		.	.		4	0	0-90	6	17	0-87	.	.		6	17	0-65	3	0	0-100
APPLETON MUNICIPAL HOSPITA APPLETON MN 56208	1	0	1-97	.	.		2	0	0-93	.	.		16	13	1-34	11	0	0-45	.	.		22	14	1-27	4	0	0-97
ARLINGTON MUNICIPAL HOSPIT ARLINGTON MN 55307	2	50	2-90	2	50	4-92	.	.		.	.		10	10	0-49	4	0	0-81	.	.		5	0	0-77	4	0	0-99
ARNOLD MEMORIAL HOSPITAL ADRIAN MN 56110	.	.		1	0	0-97	1	0	0-99	.	.		13	8	0-43	2	0	0-100	1	0	0-100	2	0	0-99	7	0	0-89
BERTHA MEMORIAL COMMUNITY BERTHA MINNESOTA 56437	.	.		.	.		.	.		.	.		1	0	0-100	.	.		2	0	0-100	1	0	0-100	1	0	0-100
BETHESDA LUTHERAN HOSPITAL SAINT PAUL MN 55101	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
BETHESDA LUTHERAN HOSPITAL SAINT PAUL MN 55103	8	25	7-66	13	31	14-63	42	10	3-24	4	0	0-100	128	6	2-11	63	2	1-16	11	0	0-100	89	1	2-12	110	0	0-7
BUFFALO MEMORIAL HOSPITAL BUFFALO MN 55313	1	0	0-97	.	.		20	10	2-32	1	0	0-100	35	3	0-19	12	8	0-47	3	0	0-100	29	3	1-21	10	10	0-83
CALEDONIA HEALTH CARE CENT CALEDONIA MN 55921	.	.		.	.		.	.		.	.		8	0	0-55	1	0	0-100	.	.		4	0	0-82	.	.	
CAMBRIDGE MEMORIAL HOSP CAMBRIDGE MN 55008	6	67	5-71	5	20	6-76	15	7	1-37	1	0	0-100	74	4	1-13	22	0	0-30	10	0	0-98	65	3	2-14	42	0	0-19
CANBY COMMUNITY HOSPITAL CANBY MN 56220	3	67	4-85	3	0	6-87	4	0	0-80	.	.		11	9	1-44	6	0	0-86	2	0	0-100	9	22	0-50	9	0	0-88
CASS LAKE PHS INDIAN HOSP CASS LAKE MN 56633	2	0	2-90	.	.		.	.		.	.		.	.		1	0	0-100	.	.		2	0	0-100	1	0	0-100
CENTRL MESABI MEDICAL CTR HIBBING MN 55746	4	25	6-81	11	9	17-71	23	22	2-30	3	0	0-100	95	5	1-11	25	0	1-26	7	0	0-100	72	7	2-13	33	0	0-23
CHIPPEWA CO-MONTEVIDEO HOS MONTEVIDEO MN 56265	5	20	4-73	3	33	4-85	9	0	0-51	.	.		43	5	1-18	11	0	0-49	2	0	0-100	21	14	1-27	14	0	0-69
CHISAGO LAKES HOSPITAL CHISAGO CITY MN 55013	1	0	0-97	1	100	0-97	11	27	1-44	.	.		23	4	1-26	17	0	0-37	4	0	0-100	23	4	1-26	11	9	0-76
CLEARWATER CO MEMORIAL HOS BAGLEY MN 56621	1	100	2-98	2	50	9-97	4	50	1-74	.	.		12	0	1-42	12	0	0-44	.	.		8	13	1-53	7	0	0-77
COMFREY HOSPITAL INC COMFREY MN 56019	.	.		1	0	3-99	.	.		.	.		4	0	0-77	5	0	0-84	2	0	0-100	2	0	0-95	1	0	0-100
COMMUNITY HOSPITAL CANNON FALLS MN 55009	2	50	7-96	5	0	8-79	9	11	1-50	1	0	0-100	10	0	1-46	10	0	0-47	1	0	0-100	11	18	0-48	8	0	0-99
COMMUNITY HOSPITAL LUVERNE MN 56156	2	50	1-90	4	25	10-86	16	0	3-38	.	.		37	5	1-19	9	0	2-51	1	0	0-100	17	0	0-32	11	0	0-69
COMMUNITY MEM HOSP DEER RIVER MN 56636	1	0	0-97	1	0	0-97	4	0	0-75	.	.		8	0	1-53	3	0	1-81	.	.		10	0	0-48	6	0	0-97
COMMUNITY MEM HOSP INC SPRING VALLEY MN 55975	.	.		2	50	3-91	.	.		.	.		9	0	0-51	.	.		.	.		7	0	0-68	9	0	0-72
COMMUNITY MEMO HOSP WINONA MN 55987	8	13	2-60	16	25	15-60	30	7	3-26	.	.		91	4	1-11	34	6	1-21	8	0	0-100	66	3	2-15	70	0	0-11

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
COMMUNITY MEMORIAL HOSPITA CLARKFIELD MN 56223	MN-41	32	19	7-35	.	.		3	67	2-82	.	.		2	50	1-89	3	0	9-91	.	.		8	25	5-60
COMMUNITY MEMORIAL HOSPITA CLOQUET MN 55720	MN-42 *	291	18	11-21	17	24	5-43	26	50	16-51	5	0	3-70	20	20	9-46	26	42	21-57	5	0	1-68	43	16	11-37
COMMUNITY MERCY HOSPITAL ONAMIA MN 56359	MN-43 *	218	10	9-19	11	64	12-64	6	33	9-74	8	0	2-55	6	17	3-65	5	60	10-80	13	8	5-49	44	7	12-38
COOK COMMUNITY HOSPITAL COOK MN 55723	MN-44 *	53	9	5-24	1	100	1-97	.	.		2	0	0-94	3	33	3-83	3	0	3-83	1	0	0-98	7	0	4-63
COOK COUNTY NORTH SHORE HO GRAND MARAIS MN 55604	MN-45 *	92	20	8-24	10	40	9-62	3	33	3-83	4	25	2-75	5	20	4-71	3	67	9-90	2	0	1-89	12	33	5-49
CUYUNA RANGE DIST HOSP CROSBY MN 56441	MN-46	348	12	10-19	21	43	12-51	9	22	8-62	9	33	3-55	21	5	9-45	22	45	18-57	9	11	5-58	45	18	11-36
DISTRICT MEMORIAL HOSPITAL FOREST LAKE MN 55025	MN-47 *	253	13	8-18	17	35	7-47	12	25	8-56	11	36	5-52	14	21	8-51	9	33	12-68	15	13	4-45	20	25	8-44
DIVINE PROVIDENCE HOSP IVANHOE MN 56142	MN-48 *	147	10	10-23	9	11	11-67	3	67	5-85	1	0	0-97	5	40	3-70	9	11	18-75	1	0	0-97	28	11	11-42
DIVINE REDEEMER MEMO HOSP SOUTH SAINT PAUL MN 55075	MN-49 *	512	14	9-17	25	16	9-43	17	35	11-52	15	13	5-46	32	38	12-42	42	55	24-53	15	7	6-48	40	13	7-32
DOUGLAS COUNTY HOSPITAL ALEXANDRIA MN 56308	MN-50 *	848	9	9-17	93	18	13-33	33	33	17-48	23	22	9-45	42	29	11-37	48	27	25-53	26	4	7-39	52	2	10-33
DR HENRY SCHMIDT MEMORIAL WESTBROOK MN 56183	MN-51 *	60	13	11-32	2	0	3-91	3	33	8-89	1	0	0-100	4	0	6-81	2	100	3-91	2	50	3-92	14	14	8-52
ELY BLOOMENSON COMMUNITY H ELY MN 55731	MN-52 *	173	21	9-21	6	50	4-68	6	33	5-68	4	25	1-74	13	46	11-58	12	58	18-69	7	29	3-61	16	19	8-49
EVELETH FITZGERALD COMMUNI EVELETH MN 55734	MN-53	65	22	7-25	6	50	6-70	3	100	4-85	1	0	0-99	6	17	4-66	.	.		4	50	4-78	4	25	1-74
FAIRMONT COMMUNITY HOSP FAIRMONT MN 56031	MN-54 *	602	14	10-18	65	25	14-38	35	23	15-45	23	35	8-42	21	38	9-44	48	38	27-55	19	16	5-42	34	15	9-36
FAIRVIEW AND DEACONESS HOS MINNEAPOLIS MN 55406	MN-55 *	1395	10	7-14	73	14	13-36	32	31	15-47	16	19	7-47	62	26	13-35	34	26	23-55	34	15	11-42	87	20	14-33
FAIRVIEW PRINCETON HOSPITA PRINCETON MN 55371	MN-56 *	215	10	8-19	8	13	10-68	7	43	7-68	7	0	2-60	16	31	8-48	5	80	10-81	7	14	6-66	19	21	9-46
FAIRVIEW RIDGES HOSPITAL BURNSVILLE MN 55337	MN-57	363	12	8-17	17	24	7-47	17	35	10-50	10	0	3-52	20	20	10-47	21	43	20-60	8	38	6-63	31	13	6-34
FAIRVIEW SOUTHDALE HOSPITA EDINA MN 55435	MN-58	2879	12	8-15	250	17	13-28	102	34	21-40	85	18	8-27	130	14	15-30	138	40	30-49	71	11	8-30	176	24	13-27
FOSSTON MUNICIPAL HOSPITAL FOSSTON MN 56542	MN-59 *	239	15	12-23	12	25	8-57	9	11	11-67	9	22	2-52	17	41	11-51	16	38	19-64	8	25	4-59	36	14	13-41
GAYLORD COMMUNITY HOSPITAL GAYLORD MN 55334	MN-60	56	9	6-24	1	0	0-99	5	0	9-79	.	.		3	67	2-81	.	.		5	0	0-70	8	38	8-65
GLACIAI RIDGE HOSPITAL GLENWOOD MN 56334	MN-61 *	180	14	6-18	6	17	4-66	5	40	6-75	.	.		6	33	6-69	3	33	9-90	3	0	0-85	22	32	11-48
GLENCOE AREA HEALTH CENTER GLENCOE MN 55336	MN-62 *	275	14	7-17	16	25	8-49	12	33	9-57	5	0	1-68	13	31	7-52	17	53	18-62	6	33	6-70	19	32	6-42
GOLDEN VALLEY HLTH CTR GOLDEN VALLEY MN 55422	MN-63 *	81	1	0-14	.	.		.	.		.	.		.	.		.	.		.	.			.	
GRANITE FALLS MUNICIPAL HO GRANITE FALLS MN 56241	MN-64 *	305	14	10-20	16	25	7-49	12	0	9-57	6	50	4-67	19	42	13-52	18	39	22-66	11	0	7-57	32	19	10-40
GRANT CO HOSPITAL ELBOW LAKE MN 56531	MN-65 *	169	13	9-21	6	17	1-63	7	43	6-66	4	0	2-75	11	18	8-57	8	50	14-73	7	0	4-63	27	15	12-45
GREENBUSH COMM HOSP GREENBUSH MN 56726	MN-66 *	69	28	12-32	5	60	6-74	1	0	1-97	1	100	0-97	2	0	3-91	6	50	9-74	5	20	3-70	14	29	10-55

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
COMMUNITY MEMORIAL HOSPITA CLARKFIELD MN 56223	.	.		.	.		.	.		.	.		2	50	0-98	.	.		.	.		4	0	0-80	1	0	0-100
COMMUNITY MEMORIAL HOSPITA CLOQUET MN 55720	4	25	3-77	2	50	5-93	9	11	1-50	.	.		31	0	1-21	1	0	0-100	.	.		23	4	0-25	11	9	0-57
COMMUNITY MERCY HOSPITAL ONAMIA MN 56359	2	0	0-95	3	67	7-89	3	0	0-84	.	.		21	0	0-28	9	0	0-75	3	0	0-100	12	0	0-45	7	0	0-89
COOK COMMUNITY HOSPITAL COOK MN 55723	.	.		.	.		.	.		.	.		4	0	0-78	.	.		.	.		8	0	0-59	.	.	
COOK COUNTY NORTH SHORE HO GRAND MARAIS MN 55604	2	50	2-90	2	100	3-91	1	0	0-100	.	.		4	0	0-81	2	0	0-97	.	.		5	0	0-82	5	0	0-98
CUYUNA RANGE DIST HOSP CROSBY MN 56441	10	10	8-63	2	0	4-92	4	25	1-73	1	0	0-100	40	5	1-18	12	0	0-47	.	.		38	0	1-19	12	0	0-80
DISTRICT MEMORIAL HOSPITAL FOREST LAKE MN 55025	5	60	5-75	.	.		10	10	1-47	1	0	0-100	22	0	0-27	9	0	0-51	1	0	0-100	18	0	0-31	14	0	0-72
DIVINE PROVIDENCE HOSP IVANHOE MN 56142	4	25	7-83	1	100	1-97	2	0	0-96	.	.		18	0	1-31	7	0	1-58	2	0	0-100	9	0	0-51	9	0	0-71
DIVINE REDEEMER MEMO HOSP SOUTH SAINT PAUL MN 55075	1	0	0-100	4	25	5-80	16	13	1-36	.	.		52	4	1-15	30	3	2-25	2	0	0-100	41	5	1-18	16	0	0-52
DOUGLAS COUNTY HOSPITAL ALEXANDRIA MN 56308	6	17	11-79	8	13	17-78	49	4	2-20	2	0	0-100	89	1	2-13	44	0	0-19	11	0	0-100	42	2	1-18	100	1	0-8
DR HENRY SCHMIDT MEMORIAL WESTBROOK MN 56183	.	.		2	50	3-92	.	.		.	.		3	0	0-98	2	50	0-94	1	0	0-100	3	0	0-93	6	0	0-97
ELY BLOOMENSON COMMUNITY H ELY MN 55731	3	33	1-83	3	67	4-85	1	0	0-100	1	0	0-100	14	14	0-37	3	0	0-95	2	0	0-100	16	0	0-35	12	0	0-90
EVELETH FITZGERALD COMMUNI EVELETH MN 55734	1	100	1-97	1	0	3-99	1	0	0-100	.	.		6	0	0-67	3	0	0-95	.	.		4	25	0-85	1	0	0-100
FAIRMONT COMMUNITY HOSP FAIRMONT MN 56031	1	0	0-97	1	0	3-99	17	6	1-34	2	0	0-100	89	2	2-13	56	2	0-16	14	0	0-99	39	8	1-18	16	0	0-44
FAIRVIEW AND DEACONESS HOS MINNEAPOLIS MN 55406	13	31	10-61	4	75	7-82	33	24	2-24	.	.		108	6	2-12	49	10	1-18	10	0	0-96	39	3	1-18	105	3	0-8
FAIRVIEW PRINCETON HOSPITA PRINCETON MN 55371	5	0	4-74	2	50	5-93	9	11	1-50	.	.		27	4	1-23	6	0	0-66	2	0	0-100	26	4	1-23	7	0	0-90
FAIRVIEW RIDGES HOSPITAL BURNSVILLE MN 55337	3	0	3-84	6	50	8-74	12	8	1-42	1	0	0-100	44	7	1-17	12	8	0-49	4	0	0-100	23	13	1-26	30	0	0-27
FAIRVIEW SOUTHDALE HOSPITA EDINA MN 55435	11	18	6-58	18	50	17-61	136	10	4-15	11	0	0-99	251	5	2-9	132	4	1-11	44	2	0-15	227	4	2-8	234	3	0-5
FOSSTON MUNICIPAL HOSPITAL FOSSTON MN 56542	11	18	10-64	3	33	6-87	.	.		.	.		20	10	1-29	17	6	1-33	.	.		18	0	1-31	4	0	0-100
GAYLORD COMMUNITY HOSPITAL GAYLORD MN 55334	.	.		.	.		1	0	0-100	.	.		7	0	0-66	3	0	0-99	.	.		2	0	0-99	2	0	0-100
GLACIAI RIDGE HOSPITAL GLENWOOD MN 56334	1	100	1-97	1	100	1-97	8	25	1-53	.	.		23	0	1-26	11	18	0-46	.	.		21	0	1-27	6	0	0-86
GLENCOE AREA HEALTH CENTER GLENCOE MN 55336	2	0	0-93	.	.		5	0	0-73	.	.		48	8	1-17	10	30	0-50	1	0	0-100	27	4	1-23	14	0	0-64
GOLDEN VALLEY HLTH CTR GOLDEN VALLEY MN 55422	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
GRANITE FALLS MUNICIPAL HO GRANITE FALLS MN 56241	2	50	1-90	5	20	11-82	12	25	3-45	.	.		26	4	2-26	19	11	0-32	3	0	0-100	27	7	1-23	16	0	0-37
GRANT CO HOSPITAL ELBOW LAKE MN 56531	2	50	1-90	1	100	1-98	4	25	0-76	.	.		25	0	1-24	2	0	0-99	1	0	0-100	23	0	1-26	3	0	0-84
GREENBUSH COMM HOSP GREENBUSH MN 56726	5	80	9-81	1	100	1-97	.	.			.		8	25	1-53	5	0	0-77	.	.		3	0	0-96	2	0	0-100

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
HARMONY COMMUNITY HOSPITAL HARMONY MN 55939	MN-67 *	90	14	10-27	1	0	0-99	3	67	5-86	1	0	0-99	12	42	9-57	2	100	5-93	1	0	0-97	32	0	10-39
HENDRICKS COMMUNITY HOSPIT HENDRICKS MN 56136	MN-68 *	159	15	11-24	11	36	10-60	18	17	14-56	3	33	2-82	10	30	8-59	3	33	6-87	1	0	0-98	27	33	11-44
HENNEPIN CO MED CTR MINNEAPOLIS MN 55455	MN-69	2093	11	10-16	82	32	22-45	47	32	18-44	54	19	11-34	73	12	14-34	74	55	31-55	90	10	9-30	236	14	16-29
HERON LAKE MUNICIPAL HOSPI HERON LAKE MN 56137	MN-70 *	66	5	7-24	2	0	6-94	3	33	6-86	1	0	0-99	4	0	3-76	.	.		.	.		11	9	6-55
HOLY TRINITY HOSPITAL GRACEVILLE MN 56240	MN-71	288	11	10-20	11	45	10-61	10	20	10-62	.	.		13	23	7-52	9	56	15-73	23	9	8-43	53	13	13-37
HUTCHINSON COMMUNITY HOSPI HUTCHINSON MN 55350	MN-72 *	399	12	8-17	19	21	7-45	22	32	13-51	10	20	5-54	16	38	11-53	14	57	17-65	15	7	4-44	38	8	9-35
IMMANUEL HOSP ST JOSEPHS U MANKATO MN 56001	MN-73	1722	11	8-15	126	26	14-33	62	31	17-40	26	31	9-42	53	43	14-37	75	41	29-52	19	32	6-43	97	22	13-31
INTERNATIONAL FALLS MEM HO INTERNATIONAL FALLS MN 56649	MN-74 *	235	16	9-20	13	54	9-56	13	38	10-56	7	14	3-61	13	31	9-55	21	52	21-61	17	18	4-43	19	11	6-43
ITASCA MEMORIAL HOSPITAL GRAND RAPIDS MN 55744	MN-75 *	681	14	10-18	55	38	18-44	33	27	15-46	11	36	2-47	41	20	12-38	53	38	26-53	20	10	3-37	70	11	9-29
JACKSON MUNICIPAL HOSPITAL JACKSON MN 56143	MN-76 *	183	16	10-22	5	80	10-81	7	29	8-69	3	0	0-82	14	21	8-51	8	13	16-76	7	14	3-61	34	35	14-44
JOHNSON MEMORIAL HOSPITAL DAWSON MN 56232	MN-77 *	149	14	9-22	6	33	7-71	4	25	6-80	7	43	9-70	12	8	7-53	6	83	13-79	3	33	2-81	21	14	9-45
KANABEC COUNTY HOSPITAL MORA MN 55051	MN-78 *	253	14	11-21	19	47	12-52	17	29	12-53	8	38	2-56	10	10	6-56	11	27	11-62	9	22	8-63	36	6	10-37
KARLSTAD MEMORIAL HOSPITAL KARLSTAD MN 56732	MN-79 *	165	16	9-22	10	40	6-58	5	20	7-76	6	17	4-67	10	20	7-59	10	20	13-67	5	0	2-69	24	29	11-45
KITTSON MEMORIAL HOSP HALLOCK MN 56728	MN-80 *	96	19	6-21	7	29	3-61	3	0	2-81	2	50	1-89	11	55	7-55	2	50	5-94	6	0	1-64	12	33	3-46
LAKE CITY HOSPITAL LAKE CITY MN 55041	MN-81 *	220	14	9-20	17	35	10-52	10	40	9-62	4	25	1-74	15	33	8-51	9	33	18-75	8	13	3-58	21	24	10-46
LAKE REGION HOSPITAL FERGUS FALLS MN 56537	MN-82 *	839	12	10-18	65	8	12-35	35	40	17-48	19	0	8-47	44	25	15-41	42	48	27-57	25	28	9-43	90	22	15-35
LAKE VIEW MEM HOSP TWO HARBORS MN 55616	MN-83 *	167	16	8-20	10	20	3-53	8	25	5-60	2	50	0-92	11	36	6-54	14	21	22-70	2	0	0-93	14	29	6-49
LAKEFIELD MUNICIPAL HOSPIT LAKEFIELD MN 56150	MN-84 *	66	18	9-28	1	0	0-98	9	56	13-70	1	0	0-97	2	0	1-89	5	40	10-81	2	50	1-89	8	13	7-65
LAKEVIEW MEMORIAL HOSPITAL STILLWATER MN 55082	MN-85 *	484	12	7-15	23	26	7-41	26	31	13-46	11	9	4-50	18	50	9-47	14	43	17-65	17	0	3-40	50	8	11-34
LITTLEFORK MUNICIPAL HOSP LITTLEFORK MN 56653	MN-86 *	5	20	3-69	.	.		.	.		.	.		.	.		2	0	2-90	.	.		2	50	0-89
LONG PRAIRIE HOSPITAL LONG PRAIRIE MN 56347	MN-87 *	102	11	9-24	11	9	7-56	11	36	12-64	3	0	3-82	1	0	0-97	5	20	13-84	2	50	1-89	8	13	5-60
MADELIA COMM HOSP MADELIA MN 56062	MN-88	161	13	9-22	10	30	7-59	4	25	5-78	5	0	2-69	12	33	10-58	13	23	18-68	5	0	2-69	16	13	6-46
MADISON HOSPITAL MADISON MN 56256	MN-89	162	15	9-22	9	33	10-66	4	50	2-75	6	33	1-63	6	33	6-70	11	55	17-70	5	0	1-68	27	26	8-40
MAHNOMEN CO AND VILLAGE HO MAHNOMEN MN 56557	MN-90 *	73	12	7-25	.	.		1	100	1-97	5	0	1-68	4	50	2-75	8	38	14-74	3	0	0-83	8	13	5-60
MEEKER COUNTY MEM HOSP LITCHFIELD MN 55355	MN-91 *	428	12	11-19	24	8	9-44	19	26	13-53	9	22	6-59	19	37	13-52	31	26	27-61	13	15	4-49	61	8	12-34
MELROSE HOSP MELROSE MN 56352	MN-92 *	111	9	9-24	4	25	3-77	.	.		3	33	1-81	6	0	6-69	5	0	10-80	6	0	1-63	21	24	11-47

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																				
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics					
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent			
HARMONY COMMUNITY HOSPITAL HARMONY MN 55939	1	0	0-97	.	.		.	.		.	.		5	20	1-67	5	0	0-78	.	.			.		2	0	0-89			
HENDRICKS COMMUNITY HOSPIT HENDRICKS MN 56136	.	.		1	0	2-98	3	33	0-85	1	0	0-100	19	5	2-32	2	0	0-100	3	0	0-100	4	25	0-77	10	0	0-54			
HENNEPIN CO MED CTR MINNEAPOLIS MN 55455	81	17	10-39	26	42	23-61	45	16	3-22	14	0	0-63	111	8	3-14	97	9	3-15	6	0	0-93	126	3	2-11	107	1	0-7			
HERON LAKE MUNICIPAL HOSPI HERON LAKE MN 56137	.	.		1	0	2-98	.	.		.	.		6	0	0-65	1	0	0-98	.	.		11	0	0-44	4	0	0-100			
HOLY TRINITY HOSPITAL GRACEVILLE MN 56240	3	67	6-88	1	0	2-98	.	.		.	.		34	6	2-22	14	0	1-38	4	0	0-97	28	11	1-22	3	0	0-99			
HUTCHINSON COMMUNITY HOSPI HUTCHINSON MN 55350	3	33	2-83	6	17	9-75	11	9	2-45	.	.		44	9	1-18	11	18	0-45	8	0	0-100	21	5	1-28	30	3	0-27			
IMMANUEL HOSP ST JOSEPHS U MANKATO MN 56001	10	50	6-61	10	10	14-69	129	5	6-18	8	0	0-100	180	4	3-10	101	3	1-12	16	0	0-100	89	1	2-13	230	0	0-5			
INTERNATIONAL FALLS MEM HO INTERNATIONAL FALLS MN 56649	4	0	4-78	.	.		3	0	0-87	.	.		30	0	0-21	4	25	0-75	2	0	0-100	24	8	1-25	5	20	0-98			
ITASCA MEMORIAL HOSPITAL GRAND RAPIDS MN 55744	5	20	2-71	9	22	8-63	24	4	2-29	6	0	0-100	64	9	2-15	25	0	0-26	6	0	0-100	47	0	1-16	53	0	0-15			
JACKSON MUNICIPAL HOSPITAL JACKSON MN 56143	.	.		1	100	1-97	1	0	0-99	.	.		23	0	1-27	8	0	0-59	.	.		21	0	0-27	10	10	0-62			
JOHNSON MEMORIAL HOSPITAL DAWSON MN 56232	1	0	0-100	2	0	4-93	4	0	0-77	.	.		26	0	1-24	5	20	0-72	.	.		4	0	0-85	4	0	0-88			
KANABEC COUNTY HOSPITAL MORA MN 55051	4	25	6-82	6	50	14-81	2	0	0-95	.	.		35	9	1-20	5	20	0-76	2	0	0-100	22	5	1-27	10	10	0-49			
KARLSTAD MEMORIAL HOSPITAL KARLSTAD MN 56732	4	100	7-83	.	.		3	0	1-81	1	0	0-100	20	10	1-29	8	0	0-64	.	.		12	0	0-43	9	11	0-63			
KITTSON MEMORIAL HOSP HALLOCK MN 56728	.	.		.	.		4	0	0-77	1	0	0-100	15	7	1-35	2	0	0-96	1	0	0-100	5	20	0-70	4	0	0-99			
LAKE CITY HOSPITAL LAKE CITY MN 55041	4	50	6-81	1	100	1-97	8	13	1-54	.	.		25	4	1-24	7	0	0-69	2	0	0-100	10	0	0-47	18	0	0-48			
LAKE REGION HOSPITAL FERGUS FALLS MN 56537	4	0	3-77	6	17	9-75	22	9	1-29	3	0	0-100	91	3	3-15	56	2	1-16	20	0	0-98	54	4	2-16	79	3	0-9			
LAKE VIEW MEM HOSP TWO HARBORS MN 55616	.	.		1	0	0-97	5	20	0-69	.	.		24	8	1-26	3	0	0-89	3	0	0-100	12	17	0-42	4	0	0-100			
LAKEFIELD MUNICIPAL HOSPIT LAKEFIELD MN 56150	.	.		1	0	1-97	2	50	0-91	.	.		8	0	0-55	1	0	0-100	1	0	0-100	9	11	0-51	2	0	0-100			
LAKEVIEW MEMORIAL HOSPITAL STILLWATER MN 55082	5	40	2-71	1	0	0-97	22	23	2-30	6	0	0-100	41	7	1-18	11	0	1-45	3	0	0-100	30	7	1-22	94	2	0-9			
LITTLEFORK MUNICIPAL HOSP LITTLEFORK MN 56653	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.				
LONG PRAIRIE HOSPITAL LONG PRAIRIE MN 56347	.	.		.	.		8	0	1-53	.	.		9	11	0-55	8	0	0-55	2	0	0-100	7	0	0-63	2	0	0-99			
MADELIA COMM HOSP MADELIA MN 56062	.	.		1	0	0-97	7	14	1-57	.	.		19	5	1-30	7	14	1-58	1	0	0-100	6	17	0-73	6	0	0-92			
MADISON HOSPITAL MADISON MN 56256	2	50	2-90	4	0	9-85	5	0	0-74	.	.		12	0	0-42	13	0	0-42	.	.		8	0	0-55	4	0	0-100			
MAHNOMEN CO AND VILLAGE HO MAHNOMEN MN 56557	1	100	0-98	.	.		.	.		.	.		6	0	0-80	1	0	0-100	1	0	0-100	6	0	0-63	.	.				
MEEKER COUNTY MEM HOSP LITCHFIELD MN 55355	3	33	1-83	5	40	7-77	15	0	1-36	.	.		49	8	2-17	20	0	1-30	11	0	0-99	33	9	1-21	20	0	0-32			
MELROSE HOSP MELROSE MN 56352	1	0	1-97	.	.		.	.		.	.		12	0	0-42	6	0	0-66		.		9	0	0-53	1	0	0-99			

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MEMORIAL HOSPITAL PERHAM MN 56573	MN-93	174	21	12-25	9	44	9-65	11	18	10-61	6	50	5-68	5	40	7-76	7	43	13-76	5	60	6-75	34	29	12-42
MERCY HOSPITAL MOOSE LAKE MN 55767	MN-94 *	168	15	9-21	8	63	6-64	3	67	3-82	6	0	1-63	13	15	8-52	7	29	10-72	6	0	0-65	29	24	10-41
MERCY MEDICAL CENTER COON RAPIDS MN 55433	MN-95 *	967	11	8-15	87	22	13-34	31	23	12-42	21	14	7-42	54	33	13-36	38	21	24-55	22	14	8-44	55	33	13-36
METHODIST HOSPITAL SAINT LOUIS PARK MN 55426	MN-96	2816	11	10-16	276	19	19-34	110	30	21-39	59	12	11-34	133	22	16-32	88	38	28-49	57	18	8-32	226	16	16-29
METROPOLITAN MED CTR MINNEAPOLIS MN 55404	MN-97	2631	9	7-14	185	19	14-31	73	29	21-44	59	8	10-33	93	23	16-34	62	34	31-57	80	8	9-30	139	22	15-31
MIDWAY HOSPITAL SAINT PAUL MN 55104	MN-98 *	1343	11	8-15	128	21	12-30	56	30	19-44	29	14	7-38	45	33	13-39	59	39	26-51	28	14	5-35	77	16	13-33
MILACA AREA HOSPITAL MILACA MN 56353	MN-99	182	24	11-23	7	29	3-60	9	44	9-65	4	25	3-76	21	33	12-49	9	67	13-70	11	55	16-70	27	37	10-42
MILLER-DAWN HOSP MED CTR DULUTH MN 55805	MN-100*	406	6	6-15	15	7	11-56	2	50	5-93	6	17	4-67	14	21	12-58	4	25	14-89	8	0	3-58	11	9	7-57
MINNESOTA VALLEY MEM HOSP LE SUEUR MN 56058	MN-101	83	18	9-26	5	80	6-75	4	25	4-77	2	50	3-91	12	42	6-51	6	0	10-76	.	.		15	20	7-48
MINNEWASKA HOSPITAL STARBUCK MN 56381	MN-102*	173	12	9-21	3	67	6-87	7	0	4-63	5	20	1-68	3	0	2-82	18	39	23-66	12	25	5-52	24	8	8-41
MONTICELLO-BIG LAKE HOSPIT MONTICELLO MN 55362	MN-103*	109	17	8-23	7	29	2-60	7	29	4-63	1	0	0-98	8	13	6-61	10	70	17-73	4	0	1-74	10	0	4-53
MOUNDS PARK HOSP SAINT PAUL MN 55106	MN-104*	943	8	7-14	55	13	13-38	31	23	14-46	13	31	7-52	43	23	13-39	30	40	24-58	31	23	8-38	53	17	11-34
MOUNT SINAI HOSPITAL MINNEAPOLIS MN 55404	MN-105*	1531	8	8-15	101	16	13-33	47	13	18-45	43	14	8-33	91	20	16-35	44	16	25-54	30	17	7-37	119	19	14-31
MOUNTAIN LAKE COMMUNITY HO MOUNTAIN LAKE MN 56159	MN-106	164	18	11-24	6	33	9-75	4	50	7-81	3	67	3-83	9	33	5-57	6	50	14-81	5	20	1-68	35	26	13-42
MURRAY COUNTY MEMORIAL HOS SLAYTON MN 56172	MN-107*	246	16	10-21	8	50	14-75	12	67	10-58	9	44	5-57	12	33	7-53	15	40	20-67	8	13	4-60	38	16	12-40
NAEVE HOSPITAL ASSN ALBERT LEA MN 56007	MN-108*	996	12	9-16	104	24	12-31	22	14	13-50	23	4	7-41	64	20	14-35	53	43	26-53	17	12	4-42	87	18	10-28
NORTH COUNTRY HOSPITAL BEMIDJI MN 56601	MN-109	916	10	9-17	53	21	15-41	34	26	16-46	23	22	9-44	48	15	13-38	41	29	22-51	35	11	9-38	94	16	13-32
NORTH MEM MED CTR ROBBINSDALE MN 55422	MN-110	2931	13	8-15	231	28	14-29	110	30	18-36	46	26	6-30	130	25	15-30	167	34	30-47	85	18	9-30	191	28	15-29
NORTHERN ITASCA HOSPITAL BIGFORK MN 56628	MN-111	74	15	7-25	.	.		4	25	4-78	4	25	1-74	3	67	1-81	6	50	11-77	1	0	0-100	9	33	6-59
NORTHFIELD CITY HOSP NORTHFIELD MN 55057	MN-112*	239	13	9-19	16	38	8-49	12	42	10-58	7	0	2-59	16	19	8-49	12	33	23-75	3	0	1-81	22	9	8-42
NORTHWESTERN HOSPITAL THIEF RIVER FALLS MN 56701	MN-113	725	15	11-18	60	30	13-38	41	44	17-45	13	8	7-52	36	31	15-44	39	56	25-56	39	10	8-36	61	11	11-32
OLMSTED COMMUNITY HOSPITAL ROCHESTER MN 55901	MN-114	217	12	8-19	15	7	6-48	11	18	10-60	8	0	2-56	13	23	8-52	10	10	16-71	8	13	2-57	25	20	7-39
ORTONVILLE MUNICIPAL HOSP ORTONVILLE MN 56278	MN-115*	156	13	8-20	10	0	3-52	5	20	4-71	6	33	3-65	2	50	1-89	13	8	16-65	4	25	1-75	19	11	5-41
OWATONNA CITY HOSPITAL OWATONNA MN 55060	MN-116	529	10	8-17	20	15	7-44	17	29	13-54	21	5	5-39	28	25	13-45	27	33	21-56	17	18	6-45	59	22	12-34
PARKERS PRAIRIE DISTRICT H PARKERS PRAIRIE MN 56361	MN-117*	79	8	9-26	1	100	0-99	4	0	3-75	4	0	2-75	4	0	4-77	10	20	15-70	4	25	2-75	9	0	4-56
PAYNESVILLE COMM HOSP PAYNESVILLE MN 56362	MN-118	192	14	11-23	12	8	4-50	8	25	10-68	6	17	5-69	16	38	8-49	11	45	19-73	20	10	7-44	25	24	9-42

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MEMORIAL HOSPITAL PERHAM MN 56573	7	14	6-69	3	67	6-87	7	14	1-57	.	.		10	0	1-47	3	0	0-82	3	0	0-100	11	9	0-46	5	0	0-85
MERCY HOSPITAL MOOSE LAKE MN 55767		.		2	[illegible]	3-91	3	33	0-85	.	.		7	0	0-59	2	[illegible]	0-100				13	0	0-40	10	0	0-56
MERCY MEDICAL CENTER COON RAPIDS MN 55433	15	27	9-57	6	50	11-77	44	11	3-23	5	[illegible]	0-100	80	9	2-13	51	4	1-17	13	0	0-100	78	6	2-12	52	[illegible]	0-19
METHODIST HOSPITAL SAINT LOUIS PARK MN 55426	26	31	9-47	43	35	23-55	96	5	4-17	27	0	0-27	255	5	3-10	106	1	2-13	29	0	0-68	237	3	3-9	189	2	1-6
METROPOLITAN MED CTR MINNEAPOLIS MN 55404	36	14	6-40	16	25	20-67	71	8	3-18	51	0	0-25	161	6	3-11	87	3	1-14	30	0	0-80	226	8	3-9	252	2	0-5
MIDWAY HOSPITAL SAINT PAUL MN 55104	14	7	6-54	11	27	9-60	53	2	3-20	6	0	0-100	159	6	2-9	63	2	0-16	13	0	0-99	107	5	2-11	147	1	0-6
MILACA AREA HOSPITAL MILACA MN 56353	3	67	2-83	1	100	1-97	1	0	0-100				13	0	0-40	19	0	1-31	3	0	0-100	15	7	0-35	4	0	0-93
MILLER-DAWN HOSP MED CTR DULUTH MN 55805	23	26	13-55	.	.		4	0	0-78	33	0	0-35	11	18	3-47	1	0	0-100	6	0	0-100	12	25	2-44	74	0	0-11
MINNESOTA VALLEY MEM HOSP LE SUEUR MN 56058		.		.	.		1	0	0-100	.	.		6	0	0-68	2	0	0-99		.		6	0	0-74	4	0	0-97
MINNEWASKA HOSPITAL STARBUCK MN 56381	4	25	2-77	.	.		3	0	0-86		.		36	3	1-19	4	0	0-89	1	0	0-100	10	10	0-53	[illegible]	11	0-90
MONTICELLO-BIG LAKE HOSPIT MONTICELLO MN 55362	2	50	2-90	.	.		3	0	0-93	.			21	14	1-29	4	0	0-90	1	0	0-100	9	0	0-55	3	0	0-100
MOUNDS PARK HOSP SAINT PAUL MN 55106	8	13	5-64	1	100	1-97	31	0	3-26	11	0	0-100	93	1	1-11	40	5	0-19	10	0	0-99	77	5	1-12	69	0	0-10
MOUNT SINAI HOSPITAL MINNEAPOLIS MN 55404	21	10	9-50	11	55	16-69	48	13	2-20	117	0	0-9	139	4	2-10	73	4	2-15	7	0	0-100	104	4	2-11	75	1	0-10
MOUNTAIN LAKE COMMUNITY HO MOUNTAIN LAKE MN 56159	[illegible]	0	1-97	.			7	0	3-60	.			16	6	1-35	4	0	0-75				11	27	1-44	2	0	0-100
MURRAY COUNTY MEMORIAL HOS SLAYTON MN 56172	.			3	33	7-88	2	0	0-93	.	.		33	9	1-20	20	0	0-31		.		16	13	1-33	9	0	0-75
NAEVE HOSPITAL ASSN ALBERT LEA MN 56007	13	38	8-57	6	17	12-78	52	10	4-22	7	0	0-100	125	5	3-13	71	6	1-14	11	0	0-96	54	6	1-14	48	[illegible]	0-14
NORTH COUNTRY HOSPITAL BEMIDJI MN 56601	3	33	1-82	7	14	9-72	30	7	3-26	7	0	0-100	119	5	3-13	47	6	1-18	11	0	0-99	57	2	1-15	64	2	0-11
NORTH MEM MED CTR ROBBINSDALE MN 55422	13	23	7-56	13	31	16-66	94	14	4-18	5	0	0-100	244	5	2-9	124	2	1-12	19	0	0-96	389	6	3-7	215	1	0-5
NORTHERN ITASCA HOSPITAL BIGFORK MN 56628				3	0	3-83	[illegible]	0	0-99	.			5	0	0-76	6	0	0-65	.	.		14	7	1-37	3	0	0-100
NORTHFIELD CITY HOSP NORTHFIELD MN 55057	2	50	3-91	1	100	2-98	9	22	1-50	.	.		33	6	1-21	11	0	0-46	3	0	0-100	19	0	0-30	8	0	0-98
NORTHWESTERN HOSPITAL THIEF RIVER FALLS MN 56701	13	15	9-59	6	17	11-78	31	23	4-29	1	0	0-100	77	6	3-15	42	2	0-19	13	0	0-98	32	9	1-20	34	3	0-19
OLMSTED COMMUNITY HOSPITAL ROCHESTER MN 55901	.			5	40	7-76	3	0	0-85	.			30	23	1-22	7	0	0-61	7	0	0-100	7	43	0-59	17	0	0-36
ORTONVILLE MUNICIPAL HOSP ORTONVILLE MN 56278	4	50	6-81	1	100	2-98	8	13	1-53	.	.		19	5	0-30	6	0	0-74	.	.		16	[illegible]	0-34	12	0	0-46
OWATONNA CITY HOSPITAL OWATONNA MN 55060	3	0	3-84	2	0	2-90	20	5	3-33	3	0	0-100	53	2	1-15	27	4	0-28	5	0	0-100	48	2	2-17	36	3	0-20
PARKERS PRAIRIE DISTRICT H PARKERS PRAIRIE MN 56361	1	0	1-97	.						.	.		10	10	0-53	2	0	0-100				2	0	0-100	2	0	0-100
PAYNESVILLE COMM HOSP PAYNESVILLE MN 56362	4	25	4-78	1	[illegible]	2-98	.	.		.	.		18	0	0-31	7	0	0-63	1	0	0-100	14	[illegible]	0-37	4	0	0-99

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PELICAN VALLEY HLTH CTR DI PELICAN RAPIDS MN 56572	MN-119*	79	14	6-23	1	100	2-98	2	100	2-90	3	0	0-82	6	0	6-69	.	.		2	100	1-89	15	13	7-48
PHS INDIAN HOSPITAL REDLAKE MN 56671	MN-120*	40	5	5-27	.	.		3	33	3-83	.	.		5	0	2-68	1	0	1-97	.	.		4	0	4-78
PIPESTONE COUNTY MEDICAL C PIPESTONE MN 56164	MN-121*	249	20	11-21	15	40	7-50	20	35	11-49	10	10	3-52	19	21	9-47	13	46	21-70	10	10	4-54	38	29	11-39
QUEEN OF PEACE HOSPITAL NEW PRAGUE MN 56071	MN-122*	311	13	12-22	30	27	12-44	11	18	10-60	3	0	7-88	12	8	7-53	26	23	24-62	13	0	3-46	48	27	14-39
REDWOOD FALLS MUNICIPAL HO REDWOOD FALLS MN 56283	MN-123	349	19	11-21	19	37	9-47	23	30	13-49	14	43	7-50	36	33	12-40	25	44	23-60	10	20	4-55	43	23	12-38
REGINA MEMORIAL HOSPITAL HASTINGS MN 55033	MN-124*	295	12	9-19	17	29	10-52	16	31	13-56	11	27	4-52	20	20	12-50	14	29	19-68	5	0	2-64	28	4	8-38
RENVILLE CO HOSP OLIVIA MN 56277	MN-125*	245	16	9-20	26	42	14-49	14	36	10-55	4	25	2-74	11	18	5-52	8	50	18-78	6	17	5-69	30	13	8-38
RICE CO DISTRICT 1 HOSP FARIBAULT MN 55021	MN-126*	730	11	9-17	50	12	13-39	25	28	17-53	16	13	5-44	76	25	15-35	20	35	20-62	11	18	5-53	78	13	11-30
RICE MEM HOSP WILLMAR MN 56201	MN-127*	1530	11	9-16	161	22	17-35	52	40	17-42	23	22	7-41	67	31	16-38	73	33	30-53	16	13	5-44	108	16	13-30
RIVERVIEW HOSPITAL CROOKSTON MN 56716	MN-128	473	14	9-17	25	24	9-43	15	20	12-56	16	6	4-43	25	16	10-42	29	31	21-56	29	7	4-33	48	33	11-35
ROCHESTER METHODIST HOSP ROCHESTER MN 55901	MN-129	5571	6	8-14	1052	11	20-32	30	27	18-51	77	16	12-33	109	17	18-35	60	32	29-55	41	5	10-38	251	18	15-28
ROSEAU AREA DISTRICT HOSP ROSEAU MN 56751	MN-130*	183	14	11-23	7	86	9-71	10	40	12-66	2	50	0-90	4	50	4-78	6	0	12-78	11	0	3-50	46	20	12-37
RUSH CITY HOSPITAL RUSH CITY MN 55069	MN-131*	90	13	8-24	2	50	1-89	6	33	6-70	2	0	3-91	5	0	3-70	6	50	13-79	4	25	2-75	14	21	5-46
SAMARITAN HOSPITAL SAINT PAUL MN 55104	MN-132*	361	12	9-18	27	19	9-41	15	27	11-55	12	8	4-49	19	26	9-46	16	63	20-66	10	0	3-53	36	17	10-37
SANDSTONE AREA HOSP SANDSTONE MN 55072	MN-133*	106	18	9-24	2	50	1-89	6	17	6-71	2	0	2-90	15	33	7-48	6	17	10-76	4	0	1-74	16	31	9-50
SANFORD MEMORIAL HOSPITAL FARMINGTON MN 55024	MN-134	97	6	9-25	9	0	4-57	6	0	8-73	5	0	2-69	4	0	3-76	7	14	9-70	1	0	0-98	12	25	7-53
SIOUX VALLEY HOSP NEW ULM MN 56073	MN-135*	450	14	10-18	41	27	12-40	19	32	13-53	11	9	3-50	32	19	11-40	24	50	20-57	11	18	5-53	39	15	12-40
SLEEPY EYE MUNICIPAL HOSP SLEEPY EYE MN 56085	MN-136	266	13	11-22	12	50	16-68	11	36	11-62	7	29	3-61	16	0	8-49	14	50	21-69	21	19	7-43	25	20	13-48
SPRINGFIELD COMM HOSP SPRINGFIELD MN 56087	MN-137	186	18	12-24	15	47	13-58	11	27	13-65	9	11	7-61	10	30	7-58	10	70	19-75	6	0	2-64	15	13	6-48
ST ANSGAR HOSP MOORHEAD MN 56560	MN-138	744	8	9-17	54	22	13-38	28	25	15-49	17	6	6-46	22	5	9-44	28	25	24-59	26	4	6-39	77	18	15-35
ST CLOUD HOSP SAINT CLOUD MN 56301	MN-139	2363	10	9-16	209	15	16-32	56	23	20-44	34	21	8-36	92	26	16-34	101	40	30-51	80	15	12-34	158	23	15-30
ST ELIZABETH HOSPITAL WABASHA MN 55981	MN-140*	252	15	9-19	13	8	6-52	15	27	10-53	7	29	3-62	11	55	7-55	10	30	12-66	5	0	2-69	37	22	12-40
ST FRANCIS HOSPITAL SHAKOPEE MN 55379	MN-141	333	14	8-18	23	17	8-43	11	55	11-61	4	25	1-74	22	23	10-46	15	20	19-66	20	30	8-46	24	25	7-40
ST FRANCS HOSPITAL BRECKENRIDGE MN 56520	MN-142	529	12	10-18	25	20	11-46	25	32	15-51	20	20	7-44	34	18	13-42	22	45	23-63	34	12	6-35	56	16	11-34
ST GABRIELS HOSPITAL LITTLE FALLS MN 56345	MN-143*	595	11	9-17	48	13	8-33	25	24	12-46	11	18	2-48	22	18	9-44	25	40	23-60	30	10	6-37	96	16	13-31
ST JOHN'S NORTHEAST COMMUN MAPLEWOOD MN 55109	MN-144*	582	11	9-17	46	15	11-38	21	24	13-51	5	20	3-70	44	14	13-38	24	33	22-60	11	9	8-58	62	21	13-35

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PELICAN VALLEY HLTH CTR DI PELICAN RAPIDS MN 56572	.	.		.	.		1	0	0-99	.	.		5	0	0-80	2	50	1-89	.	.		8	13	0-56	4	0	0-98
PHS INDIAN HOSPITAL REDLAKE MN 56671	.	.		1	0	1-97	.	.		.	.		3	0	0-93	.	.		.	.		4	0	0-91	2	0	0-100
PIPESTONE COUNTY MEDICAL C PIPESTONE MN 56164	2	50	1-90	.	.		11	18	0-45	.	.		20	10	1-29	2	0	0-97	3	0	0-100	6	17	0-81	16	0	0-46
QUEEN OF PEACE HOSPITAL NEW PRAGUE MN 56071	2	100	1-90	5	60	9-80	10	0	1-47	.	.		24	4	1-26	15	7	0-37	3	0	0-100	20	5	1-29	13	0	0-87
REDWOOD FALLS MUNICIPAL HO REDWOOD FALLS MN 56283	2	50	2-90	4	50	7-82	8	25	1-54	.	.		39	5	1-18	13	8	1-40	4	0	0-100	15	0	0-36	12	0	0-50
REGINA MEMORIAL HOSPITAL HASTINGS MN 55033	5	20	2-71	3	0	3-83	14	14	2-40	1	0	0-100	32	6	2-23	13	0	0-52	1	0	0-100	12	8	0-42	21	0	0-38
RENVILLE CO HOSP OLIVIA MN 56277	2	0	0-90	.	.		11	18	1-44	.	.		26	4	1-24	11	9	0-46	.	.		16	6	0-34	14	0	0-48
RICE CO DISTRICT 1 HOSP FARIBAULT MN 55021	3	0	1-82	9	33	12-69	29	7	2-26	.	.		77	4	2-14	37	5	1-20	8	0	0-97	58	7	2-15	41	0	0-16
RICE MEM HOSP WILLMAR MN 56201	11	55	12-67	10	30	18-74	68	3	3-19	4	0	0-100	161	4	2-10	73	1	0-14	18	0	0-92	80	4	2-14	237	0	0-5
RIVERVIEW HOSPITAL CROOKSTON MN 56716	.	.		11	45	14-67	20	10	1-31	2	0	0-100	49	10	1-16	11	18	0-50	2	0	0-100	24	13	1-25	54	0	0-15
ROCHESTER METHODIST HOSP ROCHESTER MN 55901	69	10	7-37	37	30	22-55	50	10	3-21	266	0	0-3	464	4	4-9	346	1	1-9	72	0	0-19	111	6	2-11	579	0	1-3
ROSEAU AREA DISTRICT HOSP ROSEAU MN 56751	3	33	1-82	4	0	10-85	.	.		.	.		12	17	1-41	5	0	0-84	.	.		18	0	1-31	4	0	0-99
RUSH CITY HOSPITAL RUSH CITY MN 55069	3	0	3-84	1	0	0-97	.	.		.	.		9	0	0-52	4	25	0-80	.	.		5	0	0-80	2	0	0-100
SAMARITAN HOSPITAL SAINT PAUL MN 55104	5	0	3-72	4	75	7-83	13	8	2-42	.	.		38	0	2-20	14	0	1-39	.	.		34	0	1-21	25	8	0-29
SANDSTONE AREA HOSP SANDSTONE MN 55072	.	.		.	.		3	33	1-81	.	.		4	0	0-98	3	33	0-89	.	.		12	8	0-47	5	0	0-79
SANFORD MEMORIAL HOSPITAL FARMINGTON MN 55024	1	100	0-97	1	0	2-98	5	0	0-64	.	.		8	13	1-53	8	0	0-78	.	.		8	0	0-56	3	0	0-98
SIOUX VALLEY HOSP NEW ULM MN 56073	3	67	5-86	8	38	11-71	18	22	2-34	2	0	0-100	46	9	1-17	23	0	0-28	7	0	0-100	20	5	0-28	42	0	0-16
SLEEPY EYE MUNICIPAL HOSP SLEEPY EYE MN 56085	.	.		1	0	1-97	8	13	2-54	.	.		25	0	1-25	13	8	1-41	2	0	0-100	27	4	1-24	9	0	0-71
SPRINGFIELD COMM HOSP SPRINGFIELD MN 56087	2	100	2-90	4	75	13-89	2	0	0-91	.	.		27	4	2-26	7	14	1-58	.	.		15	0	0-35	6	0	0-77
ST ANSGAR HOSP MOORHEAD MN 56560	7	29	4-65	11	27	14-67	31	0	2-26	10	0	0-100	74	5	2-14	23	0	0-31	7	0	0-100	38	5	2-20	64	0	0-11
ST CLOUD HOSP SAINT CLOUD MN 56301	18	11	15-61	22	18	18-59	76	5	5-21	22	0	0-76	222	7	3-10	126	4	1-12	29	0	0-81	168	4	2-10	180	1	0-5
ST ELIZABETH HOSPITAL WABASHA MN 55981	3	0	1-82	3	67	6-87	3	33	0-92	.	.		26	8	0-24	7	0	0-62	2	0	0-100	19	0	1-29	10	0	0-77
ST FRANCIS HOSPITAL SHAKOPEE MN 55379	1	0	0-97	1	0	1-97	14	29	4-44	2	0	0-100	32	3	1-21	16	0	0-36	4	0	0-100	25	4	1-24	16	6	0-59
ST FRANCS HOSPITAL BRECKENRIDGE MN 56520	4	0	3-77	1	0	2-98	20	15	2-32	.	.		88	3	2-13	13	0	1-40	9	0	0-100	35	3	1-20	16	13	0-40
ST GABRIELS HOSPITAL LITTLE FALLS MN 56345	9	56	7-64	8	13	6-63	21	10	1-30	.	.		50	0	1-16	23	0	0-30	8	0	0-100	54	4	1-14	35	3	0-25
ST JOHN'S NORTHEAST COMMUN MAPLEWOOD MN 55109	4	75	4-79	6	17	6-71	23	13	2-30	2	0	0-100	69	3	1-13	17	18	0-42	11	0	0-98	36	6	1-19	44	0	0-20

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST JOHNS HOSPITAL BROWERVILLE MN 56438	MN-145*	73	19	9-28	4	25	1-74	4	75	5-79	.	.		8	25	6-63	6	83	13-79	4	0	4-78	11	18	6-53
ST JOHNS HOSPITAL RED WING MN 55066	MN-146	654	11	8-16	44	18	11-38	36	17	17-47	9	33	5-59	35	26	11-39	26	35	22-58	12	42	3-48	60	20	12-34
ST JOHNS HOSPITAL SAINT PAUL MN 55106	MN-147*	1049	12	10-17	106	20	16-36	52	33	18-43	20	25	5-40	51	29	13-37	46	35	26-55	31	26	10-42	91	14	13-32
ST JOSEPH'S HOSPITAL SAINT PAUL MN 55102	MN-148	1449	14	9-16	187	43	19-36	43	28	16-43	26	23	7-39	68	19	15-36	37	30	26-58	41	7	7-33	94	28	14-32
ST JOSEPHS HOSP BRAINERD MN 56401	MN-149*	1359	13	10-16	82	27	19-41	58	41	17-41	17	24	5-42	64	16	15-37	88	36	28-50	24	33	7-41	136	15	13-28
ST JOSEPHS HOSP PARK RAPIDS MN 56470	MN-150	516	14	11-20	38	18	15-45	22	36	13-50	10	30	7-58	29	28	10-40	28	36	21-56	14	21	8-53	98	20	13-31
ST LUKES HOSPITAL DULUTH MN 55805	MN-151	1801	12	8-15	189	25	17-33	93	28	19-38	45	29	10-36	67	25	13-33	49	45	25-53	28	25	9-42	105	26	16-34
ST MARY S HOSPITAL DULUTH MN 55805	MN-152	2438	11	10-16	279	25	19-35	79	23	18-39	54	22	13-37	95	20	16-34	130	30	28-46	44	9	11-38	160	21	14-29
ST MARYS HOSP DETROIT LAKES MN 56501	MN-153*	480	13	8-16	12	17	4-49	20	20	12-51	20	25	6-42	23	22	9-42	17	35	19-63	19	21	6-44	64	19	12-34
ST MARYS HOSP MINNEAPOLIS MN 55454	MN-154*	1405	11	8-15	100	18	16-36	37	30	18-48	34	35	9-38	59	31	17-40	35	34	27-59	26	19	10-44	87	33	14-34
ST MARYS HOSPITAL ROCHESTER MN 55901	MN-155	7062	5	6-12	692	6	15-28	191	23	21-35	71	6	9-30	114	12	16-33	182	30	30-46	30	10	9-41	185	17	14-28
ST MARYS HOSPITAL WINSTED MN 55395	MN-156	130	22	10-23	13	31	6-51	5	40	6-74	6	17	3-65	6	50	6-69	4	25	9-84	5	0	2-69	24	33	10-44
ST MICHAELS HOSPITAL SAUK CENTRE MN 56378	MN-157*	129	12	6-19	5	80	6-75	4	50	6-80	3	0	0-86	8	50	7-64	2	50	2-90	8	0	2-57	23	9	6-38
ST OLAFS HOSP AUSTIN MN 55912	MN-158*	838	12	9-16	36	19	9-38	23	39	13-49	23	26	8-42	48	10	11-34	52	31	25-52	36	33	14-45	71	14	9-29
ST PAUL RAMSEY HOSP SAINT PAUL MN 55101	MN-159	2005	12	8-15	68	18	15-39	60	32	16-39	54	22	10-33	86	23	15-33	72	57	28-52	53	19	8-33	182	21	14-29
ST PETER COMM HOSP SAINT PETER MN 56082	MN-160	270	17	11-22	12	42	9-58	22	36	18-56	9	44	5-58	20	25	11-48	16	63	17-62	9	0	1-52	23	9	11-46
STEVENS CO MEMORIAL HOSP MORRIS MN 56267	MN-161*	254	11	10-20	14	29	12-58	12	25	13-62	2	0	0-93	10	10	7-57	15	47	20-66	8	13	9-67	32	19	11-40
SWIFT COUNTY-BENSON HOSP BENSON MN 56215	MN-162*	261	13	11-21	11	36	9-59	15	20	10-54	2	50	0-90	19	16	11-49	15	20	18-64	18	17	5-44	47	17	13-38
TRACY MUNICIPAL HOSP TRACY MN 56175	MN-163*	247	15	11-21	11	64	8-58	10	50	10-63	6	17	2-64	11	45	11-62	10	50	15-69	1	0	0-100	69	9	12-33
TRI COUNTY HOSPITAL WADENA MN 56482	MN-164*	563	14	10-19	22	27	13-51	22	36	17-55	17	24	6-44	31	26	12-42	28	39	22-58	24	13	10-46	76	24	13-33
TRIMONT COMMUNITY HOSP TRIMONT MN 56176	MN-165*	128	15	14-29	5	40	7-76	2	0	2-90	4	50	3-76	7	14	4-62	9	56	22-80	10	0	9-62	35	17	14-44
TRINITY HOSPITAL BAUDETTE MN 56623	MN-166	107	13	8-23	3	67	3-83	7	14	7-68	4	25	1-74	5	20	4-71	5	20	8-77	.	.		25	20	8-40
TWEETEN MEM HOSP SPRING GROVE MN 55974	MN-167	7	14	2-59	.	.		1	0	2-98	.	.		.	.		.	.		.	.		3	33	1-82
UNITED DISTRICT HOSPITAL STAPLES MN 56479	MN-168	202	11	10-22	10	20	7-59	9	22	8-62	3	0	1-81	16	19	9-51	11	27	17-70	10	30	11-65	28	21	10-42
UNITED HOSPITAL BLUE EARTH MN 56013	MN-169	385	12	9-18	22	23	9-45	8	25	8-66	7	14	4-62	13	0	6-50	24	38	22-61	13	0	3-47	43	16	11-37
UNITED HOSPITALS INC SAINT PAUL MN 55102	MN-170	2671	11	8-14	234	17	16-32	67	34	19-42	50	24	11-36	92	34	15-33	87	39	29-51	80	14	9-31	171	20	14-29

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
Name/ Location	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST JOHNS HOSPITAL BROWERVILLE MN 56438	1	0	1-97	1	0	1-97	.	.		.	.		8	0	0-63	4	0	0-99	.	.		8	0	0-55	2	0	0-100
ST JOHNS HOSPITAL RED WING MN 55066	4	50	1-76	4	0	7-81	22	9	3-33	2	0	0-100	74	5	2-15	36	0	1-21	3	0	0-100	56	4	2-15	96	1	0-8
ST JOHNS HOSPITAL SAINT PAUL MN 55106	5	40	4-74	10	20	15-71	32	3	3-27	19	0	0-95	124	5	3-12	41	0	1-19	6	0	0-100	52	4	1-15	72	0	0-10
ST JOSEPH'S HOSPITAL SAINT PAUL MN 55102	7	57	6-69	10	10	9-63	34	3	2-24	8	0	0-100	118	6	3-12	50	0	1-17	11	0	0-82	99	5	2-12	144	3	0-6
ST JOSEPHS HOSP BRAINERD MN 56401	10	10	2-55	23	22	20-60	55	9	3-20	1	0	0-100	139	6	2-10	55	4	1-16	6	0	0-100	131	5	2-10	113	1	0-7
ST JOSEPHS HOSP PARK RAPIDS MN 56470	6	0	4-69	11	18	10-62	18	11	3-36	1	0	0-100	57	4	1-15	7	0	0-73	5	0	0-100	51	0	1-15	17	0	0-40
ST LUKES HOSPITAL DULUTH MN 55805	12	8	5-54	11	9	12-64	89	4	3-16	17	0	0-69	135	5	2-10	84	2	1-13	13	0	0-100	73	7	1-13	194	2	0-5
ST MARY S HOSPITAL DULUTH MN 55805	8	13	11-72	20	15	18-60	61	8	3-19	4	0	0-100	197	6	3-11	96	2	1-13	36	0	0-21	291	5	3-9	224	0	0-5
ST MARYS HOSP DETROIT LAKES MN 56501	7	14	4-65	3	0	2-82	14	14	1-38	2	0	0-100	50	10	1-15	7	0	0-68	2	0	0-100	45	2	1-17	39	0	0-22
ST MARYS HOSP MINNEAPOLIS MN 55454	7	14	5-67	11	36	19-73	54	6	3-21	.	.		113	4	2-12	68	1	1-15	16	6	0-94	86	2	1-11	126	2	1-7
ST MARYS HOSPITAL ROCHESTER MN 55901	21	10	6-47	16	31	23-70	130	12	4-16	21	0	0-83	427	1	3-9	191	1	1-10	98	1	0-27	1019	6	3-7	890	1	0-3
ST MARYS HOSPITAL WINSTED MN 55395	2	50	1-90	2	50	3-91	2	0	0-95	.	.		10	10	0-54	3	67	0-83	2	0	0-100	7	14	0-64	3	0	0-100
ST MICHAELS HOSPITAL SAUK CENTRE MN 56378	2	0	0-93	1	0	1-97	.	.		1	0	0-100	12	0	0-42	6	0	0-87	.	.		7	0	0-66	5	0	0-99
ST OLAFS HOSP AUSTIN MN 55912	9	22	6-63	6	50	8-74	38	18	4-26	4	0	0-100	75	3	1-12	32	6	0-22	4	0	0-100	64	0	1-14	57	0	0-13
ST PAUL RAMSEY HOSP SAINT PAUL MN 55101	11	9	6-58	23	39	18-57	74	14	4-18	19	0	0-76	112	10	3-14	58	9	2-17	5	0	0-100	156	7	2-10	82	1	0-9
ST PETER COMM HOSP SAINT PETER MN 56082	3	0	6-87	2	0	5-94	3	0	0-85	.	.		36	8	1-19	9	0	0-69	1	0	0-100	16	6	1-33	8	0	0-88
STEVENS CO MEMORIAL HOSP MORRIS MN 56267	1	0	0-100	1	0	0-97	3	0	0-84	.	.		31	3	1-22	8	0	0-79	1	0	0-100	20	0	1-28	11	0	0-58
SWIFT COUNTY-BENSON HOSP BENSON MN 56215	3	33	2-83	1	0	2-98	5	20	0-73	1	0	0-100	30	3	1-22	5	20	0-76	.	.		17	0	0-33	7	0	0-92
TRACY MUNICIPAL HOSP TRACY MN 56175	2	0	2-90	.	.		3	0	0-91	.	.		21	0	1-28	12	0	0-48	.	.		28	4	1-23	5	0	0-72
TRI COUNTY HOSPITAL WADENA MN 56482	4	25	5-80	1	100	3-99	16	0	1-35	.	.		91	9	3-14	11	0	0-47	7	0	0-91	42	5	1-18	26	0	0-27
TRIMONT COMMUNITY HOSP TRIMONT MN 56176	2	50	3-91	2	50	6-95	.	.		.	.		9	11	0-52	5	0	0-79	.	.		10	0	0-49	.	.	
TRINITY HOSPITAL BAUDETTE MN 56623	1	100	0-97	.	.		1	100	0-100	.	.		12	0	1-42	3	0	0-85	.	.		15	0	0-36	3	0	0-100
TWEETEN MEM HOSP SPRING GROVE MN 55974	.	.		.	.		.	.		.	.		1	0	0-100	1	0	0-99	.	.		.	.		1	0	0-100
UNITED DISTRICT HOSPITAL STAPLES MN 56479	2	0	3-91	2	0	7-95	1	0	0-100	.	.		21	0	1-28	5	0	0-93	5	0	0-100	20	5	0-28	13	0	0-56
UNITED HOSPITAL BLUE EARTH MN 56013	6	67	7-74	8	38	11-71	11	18	2-45	.	.		43	2	2-18	16	0	1-35	4	0	0-99	37	3	1-18	13	8	0-67
UNITED HOSPITALS INC SAINT PAUL MN 55102	30	23	13-51	12	33	12-62	71	4	4-19	82	0	0-13	248	4	3-10	111	4	1-12	23	0	0-76	300	7	3-8	189	1	0-5

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
UNITY MEDICAL CENTER FRIDLEY MN 55421	MN-171*	1291	12	8-15	109	17	11-30	33	33	15-45	38	24	6-32	67	28	14-35	58	36	24-50	35	23	10-41	103	16	12-29
UNIVERSITY OF MINNESOTA HO MINNEAPOLIS MN 55455	MN-172	2295	6	6-12	277	17	19-35	24	4	11-46	26	4	7-39	39	21	13-40	23	30	23-62	49	8	9-35	44	34	8-31
VIRGINIA REGIONAL MEDICAL VIRGINIA MN 55792	MN-173*	904	14	9-16	75	35	16-38	28	25	15-48	27	7	4-33	47	28	11-35	55	42	26-52	15	13	6-49	66	17	11-32
WACONIA RIDGEVIEW HOSP WACONIA MN 55387	MN-174	780	10	8-16	44	18	11-38	27	26	16-51	19	11	7-44	36	14	13-41	21	43	22-63	22	14	6-41	69	23	17-39
WARREN COMMUNITY HOSPITAL WARREN MN 56762	MN-175*	155	19	10-23	9	56	7-61	9	22	9-64	5	60	5-74	10	10	6-57	11	64	19-73	1	0	0-97	27	11	7-36
WASECA AREA MEM HOSP WASECA MN 56093	MN-176*	182	15	7-18	9	56	5-58	7	43	9-70	5	40	2-68	10	10	5-55	13	31	17-66	3	67	5-86	5	40	2-69
WATONWAN MEMORIAL HOSPITAL SAINT JAMES MN 56081	MN-177	182	16	9-21	10	50	11-64	7	43	7-68	6	17	6-70	9	11	6-59	4	75	12-87	5	20	5-74	23	26	11-46
WEINER MEMORIAL MEDICAL CE MARSHALL MN 56258	MN-178*	344	12	9-18	15	33	14-60	10	50	9-61	14	14	5-48	26	15	10-42	23	35	25-64	8	25	2-57	31	6	7-34
WELLS MUNICIPAL HOSP WELLS MN 56097	MN-179*	99	12	11-28	5	20	5-73	6	50	7-71	1	0	0-99	4	0	5-78	10	10	18-73	1	0	0-99	21	10	10-46
WHEATON COMM HOSP WHEATON MN 56296	MN-180	255	13	11-22	14	21	11-58	9	44	11-67	5	0	1-68	15	20	9-52	12	75	19-71	5	40	2-69	50	12	11-35
WHITE COMMUNITY HOSPITAL AURORA MN 55705	MN-181*	64	14	7-26	2	0	0-91	2	50	2-90	2	100	0-94	6	33	6-69	4	0	9-84	7	0	4-63	4	25	1-74
WINDOM AREA HOSP INC WINDOM MN 56101	MN-182	133	14	11-25	9	11	8-63	11	18	12-63	3	0	2-82	6	33	4-67	6	50	11-77	2	0	6-63	20	20	12-50
WORTHINGTON REGIONAL HOSP WORTHINGTON MN 56187	MN-183*	617	9	8-16	51	18	11-36	25	36	15-51	10	40	6-56	20	20	9-46	19	47	19-61	10	10	4-53	53	15	13-37
ZUMBROTA COMMUNITY HOSPITA ZUMBROTA MN 55992	MN-184*	167	19	9-21	13	62	13-62	8	63	10-68	6	17	2-63	10	40	8-60	4	25	8-83	5	0	0-70	16	13	6-45

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
UNITY MEDICAL CENTER FRIDLEY MN 55421	8	13	6-65	7	57	10-72	43	9	3-23	20	0	0-90	123	8	2-10	64	3	0-16	22	0	0-97	97	6	2-11	127	3	0-7
UNIVERSITY OF MINNESOTA HO MINNEAPOLIS MN 55455	71	1	2-33	6	33	12-79	17	18	2-35	221	0	0-4	89	4	2-13	64	2	1-15	7	0	0-92	176	5	2-9	122	1	0-7
VIRGINIA REGIONAL MEDICAL VIRGINIA MN 55792	4	25	4-79	11	45	17-71	41	15	3-22	5	0	0-100	109	9	2-12	43	2	1-19	11	0	0-100	70	7	1-13	46	0	0-18
WACONIA RIDGEVIEW HOSP WACONIA MN 55387	2	100	4-92	6	17	5-70	36	6	3-25	3	33	0-99	72	3	2-14	29	3	2-26	9	0	0-100	65	5	2-15	110	2	0-7
WARREN COMMUNITY HOSPITAL WARREN MN 56762	.	.		.	.		2	0	0-94	.	.		9	0	0-52	5	0	0-78	.	.		6	0	0-75	11	9	0-59
WASECA AREA MEM HOSP WASECA MN 56093	1	0	0-100	.	.		2	0	0-91	1	0	0-100	28	0	0-22	7	0	0-75	2	0	0-100	12	0	1-41	6	0	0-94
WATONWAN MEMORIAL HOSPITAL SAINT JAMES MN 56081	2	100	5-94	.	.		.	.		.	.		27	7	1-23	4	0	0-83	.	.		13	0	0-40	7	0	0-99
WEINER MEMORIAL MEDICAL CE MARSHALL MN 56258	3	0	1-82	3	33	3-83	9	22	1-50	12	0	0-94	37	8	1-20	22	5	0-33	2	0	0-100	18	0	1-31	25	0	0-38
WELLS MUNICIPAL HOSP WELLS MN 56097	1	0	1-97	.	.		2	0	0-91	.	.		19	0	2-33	1	0	0-98	1	0	0-100	7	14	0-58	2	0	0-98
WHEATON COMM HOSP WHEATON MN 56296	4	25	6-82	6	17	10-76	4	0	1-74	.	.		19	0	1-31	5	0	0-78	2	0	0-100	23	9	1-27	7	0	0-76
WHITE COMMUNITY HOSPITAL AURORA MN 55705	2	50	4-92	2	50	1-89	1	0	0-100	.	.		5	0	0-91	1	0	0-100	.	.		4	0	0-78	3	0	0-83
WINDOM AREA HOSP INC WINDOM MN 56101	3	67	5-87	1	0	1-97	1	0	0-100	.	.		16	13	1-34	2	50	0-93	2	0	0-100	9	0	0-51	9	0	0-92
WORTHINGTON REGIONAL HOSP WORTHINGTON MN 56187	1	0	0-99	5	0	10-80	11	9	1-44	8	0	0-100	83	2	2-14	41	2	0-19	12	0	0-93	45	2	1-17	27	11	0-25
ZUMBROTA COMMUNITY HOSPITA ZUMBROTA MN 55992	3	33	6-87	1	0	0-97	3	0	0-84	1	0	0-100	17	12	1-32	7	0	0-80	1	0	0-100	11	18	1-44	15	0	0-58

*Written Comments Not Submitted.

ABBOTT
NORTHWESTERN HOSPITAL
a LifeSpan family member

Hospital #240057

COMMENTS ON THE HCFA MORTALITY DATA
ABBOTT-NORTHWESTERN HOSPITAL, MINNEAPOLIS, MN

26 October 1987

The statistical model used by HCFA in preparing the 1987 release of mortality data is based upon five characteristics used to describe patients within sixteen general diagnostic categories. Predictions are made regarding the percentage of patients who would be expected to die if a hospital's mortality rate were the same as the national average for patients grouped according to those characteristics. The actual significance of these factors in influencing the risk of a patient's death is unknown. While HCFA data describing the mortality experience of Abbott-Northwestern Hospital for the surveyed patient population (3,967 cases) is generally accurate, the findings cannot be considered a final measure of hospital performance.

Abbott-Northwestern Hospital is a tertiary referral center. Of Medicare patients treated at Abbott-Northwestern, 42.9 percent came from outside the Minneapolis/St. Paul metropolitan area, compared with an average referral percentage of 13 percent for all metropolitan hospitals. While it is gratifying to note that the hospital's actual mortality rate fell within the low end of the expected range in 13 of the 16 diagnostic categories, the validity of the expected range provided by HCFA, is, in general, subject to question.

One area of particular expertise at Abbott-Northwestern is cardiovascular services, with approximately 50 percent of the hospital's CV patients coming from outside the metropolitan area. This significant referral load can be presumed to include a high percentage of more significantly ill patients. Despite this high referral load for CV, Abbott-Northwestern's actual mortality experience for patients in the category of Severe Acute Heart Disease (149 cases) falls well below the range of predicted mortality rates. While Abbott-Northwestern prides itself on the "Quality of care" provided in the institution, we feel that the complexity of cardiovascular cases seen within the hospital would not lend itself to a mortality rate below the predicted mortality range. for this reason, we must express reservations about the mechanism used by HCFA in determining "predicted mortality".

Two other factors concern us about this report, first our records indicate that of the 234 Medicare patients who died within 30 days of admission while still an inpatient, 18 were still alive at the time of discharge. We have additionally verified with physician offices that of these 18, 2 died within 30 days but subsequent to discharge. The remaining 16 did not die within 30 days of admission. This discrepancy between hospital records and the HCFA data base leaves us concerned about the level of accuracy within the data. Our second

800 E. 28TH ST. AT CHICAGO AVE. · MINNEAPOLIS, MINNESOTA 55407 · PHONE 612/863-4000

concern relates to how data will be interpreted considering that 18 percent of deaths at Abbott-Northwestern were from patients within the hospice program, we would suggest that there needs to be a correction factor in the data for the existence of such a program.

In conclusion, while deviation of particular hospitals from predicted mortality rates could be a reflection of differences in "quality of care", those variances could also indicate that the HCFA predictive model fails to account for all significant factors influencing the risk of death.

RKS:ef

ABBOTT
NORTHWESTERN HOSPITAL
a LifeSpan family member

October 27, 1987

William L. Roper, M.D., Admin.
Health Care Financing
Administration
Department of Health and
Human Services
Washington, D.C. 20201

Dear Dr. Roper:

These are the corrections to the HCFA Mortality Report of the patients who were incorrectly classified as dying within 30 days of admission at Abbott-Northwestern Hospital - Hospital #240057.

Sincerely,

Robert K. Spinner
Executive Vice President

RKS:ef

HCFA/EXEC.SEC.
'87 NOV -3 AM 9:04

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CORRECTIONS TO PATIENT LISTING FOR HOSPITAL 240057

Pt. ID #	Surname	Admission Date	Discharge Date	Date of Death
[redacted]		12/10/86	12/11/86	12/11/86
[redacted]		3/4/86	4/2/86	4/2/86
[redacted]		1/3/86	1/24/86	1/24/86
[redacted]		12/24/85	1/10/86	1/10/86
[redacted]		3/7/86	3/16/86	3/16/86
[redacted]		4/29/86	5/9/86	5/9/86
[redacted]		7/7/86	7/30/86	Still alive in '87
[redacted]		8/24/86	9/6/86	Discharged from hospital alive, can not confirm death
[redacted]		6/19/86	6/24/86	Discharged from hospital alive, HCFA says died 6/24, Dr.s office says died 7/23/86, not within 30 days
[redacted]		8/9/86	8/13/86	Still alive in 1987
[redacted]		9/9/86	9/13/86	Sill alive as of 12/4/86
[redacted]		12/10/86	12/17/86	Discharged from hospital 12/17 alive Doctor confirmed patient died 12/17.
[redacted]		7/14/86	7/23/86	Still alive in 1987
[redacted]		8/3/86	8/12/86	Still alive 5/87
[redacted]		1/30/86	2/4/86	Discharged from hospital 2/4 alive, Dr.s office confirmed death 2/86
[redacted]		7/18/86	7/25/86	Still alive in 1987
[redacted]		8/23/86	9/3/86	Seen in Dr.s office in 1987
[redacted]		6/24/86	7/10/86	Discharged from hospital alive, doct cannot confirm death

[redacted]	8/20/86	8/28/86	Alive in 1986
[redacted]	9/16/86	9/23/86	Alive in 1987
[redacted]	8/8/86	8/17/86	Alive in 1987
[redacted]	7/15/86	7/31/86	Discharged from hospital alive, Dr.s office did not confir death
[redacted]	8/11/86	8/16/86	Alive in 1987
[redacted]	9/10/86	9/12/86	Alive in 1987

AITKIN COMMUNITY HOSPITAL & NURSING HOME

301 Minnesota Avenue South • Aitkin, Minn. 56431 • 218/927-2121

Hospital ID# 240086

The following are comments on the report of Medicare mortality rates for 1986:

1) According to this report, it appears that we had 11 deaths related to surgical procedures when, in fact, we only had 2 deaths with major surgery. The additional 9 cases had Class 2,3, & 4 procedures which are not major procedures and should not be listed as such.

2) A coding error was corrected by our personnel and this error was not corrected on this report.

3) 30 out of the 52 deaths were in the age range of 80's and 90's. Though this statistical data is part of the report, it would show a more accurate picture if this was emphasized.

4) 14 of the total 52 patients were admitted through the Emergency Room.

5) 22 patients expired in another location other than this hospital. ~~14 of these 22 cases~~ expired in a nursing home.

Patrick B. Renner
Administrator

10/21/87

HCFA/EXEC.SEC.
'87 OCT 28 AM 11:11

Albany Area Hospital

October 26, 1987

The Administrator
Health Care Finance Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Sir:

Enclosed you will find Albany Area Hospital comments relative to the proposed mortality rates to be published by HCFA in December. You will also find the list of those individuals who died within 30 days of admission to the hospital, as it should be corrected. The information is generally accurate.

Thank you for the opportunity to comment. Please contact me if there are questions.

Sincerely,

William F. Lindberg
Administrator

Enclosure

WFL/kmw

P.O. BOX 370, ALBANY, MINNESOTA 56307 • PHONE: (612)845-2121

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.



I.D.# 240193

HCFA Mortality Data Comments

The data used by HCFA indicates that a total of 9 Medicare patients admitted to Albany Area Hospital died within 30 days of admission. Of these, 5 died while still a patient in the hospital and 4 died after being discharged from the hospital either to a nursing home or to another hospital. The only discrepency which was found related to a misrecorded discharge date, which has been changed.

The data submitted for Albany Area Hospital reflects a relatively small number (under 100 cases). The resultant sub-groups individually represent even smaller numbers of cases. As indicators, a change of one variable in a small number can result in a significant percentage change in the rate.

The Albany area has had a significant marketing effort by HMO's providing HMO + Medicare coverage. As a result, the number of Medicare only patients seen had decreased. Historically, HMO + Medicare plans have attracted healthier patients. This has resulted in a fewer number of reportable Medicare only patients at the hospital and a potentially higher reportable mortality rate for the group. For example, if HMO + Medicare patients are included in the HS (Severe Acute Heart Disease), there was a total of 9 patients admitted to the hospital with 4 deaths, and a mortality rate of 44.4%. This is significantly different than the 100% rate reported.

Without detailed information regarding the billing date utilized by HCFA to compute the mortality rates, we cannot verify the accuracy of the other data used, nor the methodology used, in your analysis.

P.O. BOX 370, ALBANY, MINNESOTA 56307 • PHONE: (612)845-2121

Arlington Municipal Hospital



Established in 1947 by the People of the Community

Comments to HCFA Regarding Mortality
October 23, 1987

Arlington Municipal Hospital, provider number 24-0161 respectfully submits the following comments regarding its mortality rates.

Arlington Hospital believes that the data presented cannot be used directly as a measure of hospital performance. The results were determined without consideration of a patient's general health status, the stage of the patient's illness, the patient's psychological condition, and family support. Statistical analyses of mortality rates can do no more than screen for further review. Arlington Hospital uses a comprehensive quality assurance program to measure its performance.

The low admission rate of the hospital in some of the categories measured may make the statistical analysis meaningless. Again, the results serve as a screen for further review.

It should be noted that Arlington Hospital has a hospice program.

Larry A. Schulz, Administrator

601 West Chandler Street • Arlington, MN 55307 • (612) 964-2271
MN 21

UNDERSTANDING HCFA MORTALITY RATES

The data used by HCFA indicate that a total of 322 Medicare patients admitted to Health Central of Buffalo hospital died within 30 days of admission. Of these, 24 died while still a patient of the hospital, while 19 died after discharge. Our own records indicate that 493 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to Health Central of Buffalo and to different hospitals. We have no way of verifying whether the number of Medicare patients treated at Health Central of Buffalo hospital reported by HCFA is correct. However, we have not identified any clerical errors mistakenly coded as dead at the time of discharge. It is impossible to determine the number of patients dying after discharge, as information concerning death after discharge is not included in the patient's medical record.

Health Central of Buffalo's actual mortality rate does not fall outside of the range of the predicted mortality rate in any of the diagnostic categories. Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, however, it is impossible to verify the accuracy of the diagnositc or other data used in the analysis.

As part of Health Central of Buffalo's overall quality assurrance program, 100 percent of all deaths, inpatient and ambulatory except DOA's, are routed through the Physician Review Process. Any concerns regarding quality and appropriateness of the care rendered to the patient are directed to the Quality Assurrance Committee of the Medical Staff.

Health Central of Buffalo
303 Catlin Street
Buffalo, MN 55313

Canby Community Health Services
A Subsidiary of Sioux Valley Hospital
112 St. Olaf Avenue South
Canby, Minnesota 56220
(507) 223-7277

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Re: HCFA Hospital Mortality Data
Provider No. 24-0077

Gentlemen:

The attached "Comments" are provided by us in response to the Hospital Mortality Data to be published by HCFA in December 1987.

Sincerely,

ROBERT J. SALMON, ADMINISTRATOR
CANBY COMMUNITY HEALTH SERVICES
112 ST. OLAF AVENUE SOUTH
CANBY, MINNESOTA 56220

RJS/kv

Encls.

COMMENTS ON THE HCFA MORTALITY DATA
PROVIDED BY
CANBY COMMUNITY HOSPITAL
CANBY, MN
PROVIDER NO. 24-0077

DATA VERIFICATION:

The data presented by HCFA indicates that a total of 31 Medicare patients admitted to the Canby Community Hospital died within 30 days of admission. Of these 31 deaths, three died in a post acute care swing-bed and four died in the nursing home. Of the remaining 24 deaths which occurred in the hospital, seven of these were patients transferred from a nursing home facility.

The HCFA mortality data is based upon 145 admissions, ie., only those admissions which were the last admission of a beneficiary occurring in calendar year 1986. Our records indicate a total of 221 Medicare admissions for calendar year 1986. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries either to this hospital or different hospitals. We have no way of verifying the number of cases (admissions) included in the HCFA data because identifying information was not provided.

The Hospital Listing of Deaths provided by HCFA listed the last date of Hospital Admission, Date of Discharge, Date of Death and Principal Diagnosis. We found the HCFA data to be incorrect for four of the 31 cases listed. On four cases, the HCFA admission and discharge dates are those for a "swing-bed" admission rather than the hospital admission. This would not change the total deaths, however it would change the Principal Diagnosis and the diagnostic category to which the death was assigned. Given the small number of cases within each diagnostic category this would change the "Range of Predicted Mortality Rates." This would be especially significant for the category "All Causes".

INTERPRETIVE REMARKS:

Although the Range of Predicted Mortality Rates varies greatly within Diagnostic Categories, the hospital had only one actual mortality rate which was outside the predicted range. This diagnostic category "Severe Acute Heart Disease" accounts for five patient deaths. Of these five cases, four had severe complications/comorbid conditions identified at the time of admission. These were underlying conditions which would significantly increase the risk of death.

Of the total 31 deaths, 26 cases presented with complications/comorbid conditions. Six of these cases had a history of previous hospital admissions in 1986 totaling 22 admissions.

Comfrey Hospital Inc. 104 W. Brown, Comfrey, Minnesota 56019

Elaine Dutcher, Administrator (507) 877-3211

October 19, 1987

Dr.William L. Roper, M.D.
Administrator
Health Care Financing Administration
Hospital Mortality Information
P.O.Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper: Re: Medicare provider 24-0192

I recently received mortality information about Medicare patients treated in our hospital during 1986. There were nine Medicare deaths reported and this was also the number of deaths which occurred in our hospitals during 1986. All of the nine deaths were classified under "High Risk" diagnoses. I have the following comments regarding each death.

[redacted] - Patient had repeat admissions during last quarter after a sudden onset of acute lymphoblastic leukemia which was diagnosed at Rochester previous to admissions at our hospital. Patient refused chemotherapy.

[redacted] - During the six months prior to patient's death, patient was diagnosed with a brain tumor. He underwent chemotherapy and radiation at Abbott-Northwestern, Minneapolis. Classifed as terminal.

[redacted] - Numerous admissions in past years. History of multiple myeloma and cardiac failure. Patient could not be transferred because of critical condition. Gangerous large and small intestine which was caused by massive mesenteric thrombosis.

[redacted] - Numerous admissions for several years. History of duodenal ulcer, extensive diverticulosis, GI bleeding. This admission - massive UGI bleeding.

[redacted] - Admitted from nursing home. Previous massive CVA - 1984 (hemiplegic) This admission - MI.

[redacted] - No previous history. Patient had chest pain at home all night before admission at 7:00 a.m. Diagnosis - MI. Condition deteriorated until 4:15 p.m. when a massive MI occurred causing death. Defibrillation with no results.

[redacted] - Progressive coronary disease. Admitted in cardiogenic shock after experiencing a massive MI at home. Patient died two hours later.

[redacted] - Admitted from nursing home. Diagnosis of MI and uremia.

[redacted] - History of cardiomegaly. Diagnosis of pneumonia and cardiac failure.

All of the above patients ranged in age from 76 to 95. It is our belief that care and treatment were provided as needed for the diagnosis and the patient. In analyzing the age and diagnosis of each patient, we believe they were simply in the inevitable last stage of life.

If you wish further information, please feel free to contact me. Thank you.

Sincerely,

Elaine I. Dutcher

Elaine I.Dutcher
Administrator

eid

COMMUNITY MEMORIAL HOSPITAL
DEER RIVER, MINNESOTA

COMMENTS ON THE HCFA MORTALITY DATA

To Whom It May Concern:

We reviewed the 7 cases of severe chronic heart disease, and discovered that the average age was 77.6 years. 3 patients were admitted through the emergency room and 1 patient from a nursing home. This is widely accepted that these patients will have a higher mortality rate than other types of admissions. Each case involved a list of multiple diagnoses during each hospital stay. Our records indicate that the 5 patients who died were extremely sick.

The HCFA mortality report does not consider the severity of illness, therefore; the mortality statistics collected are of little or no value. The cases we reviewed had multiple medical problems and a multitude of secondary diagnoses, with a poor prognosis upon admission.

The collection and distribution of this data takes considerable time, effort, and taxpayers dollars from your agency. In addition, we must spend time responding to questionable data.

In your letter you indicate that "The quality of care in the nation will be better off as a result of the data". I disagree with you. This data does not measure quality.

I am not in favor of publishing these statistics because the layperson may misinterpret this information, and therefore; the hospital may be in the position of justification of what was actually good quality of care.

Sincerely,

William Eckblad
Administrator

COMMUNITY MEMORIAL HOSPITAL, INC.
SPRING VALLEY, MINNESOTA
PROVIDER NO. 24 0105

[redacted] - 11-16-86 to 11-17-86 - Date of death 11-17-86
This patient was admitted to S.V. Hospital in 1976 with possible carcinoma of the prostate and was transferred to Mayo Clinic for a definitive diagnosis and also treatment. The patient was admitted to S.V. Hospital again on 6-6-86 for gastrointestinal bleeding. He was also receiving chemotherapy at the Mayo Clinic. The patient was again admitted to S.V. Hospital on 11-16-86 and expired the day following admisison.

[redacted] male - 8-29-86 to 9-9-86 - Date of death 9-26-86
Patient diagnosed as having carcinoma of colon with colon resection two and one-half years ago and received chemotherapy. Patient admitted as an acute patient to S.V. Hospital with terminal care orders written. The patient was transferred to a Swing Bed after becoming stable. He was placed in the Swing Bed on 9-9-86 and expired 9-26-86.

[redacted] - male - 12-9-86 to 12-14-86 - Date of death 12-14-86
Patient diagnosed at Mayo Clinic two months earlier with disseminated carcinoma, Type uncertain. Patient did not wish any further follow-up and was discharged home for terminal care. Patient had progressive downhill course at home and in the hospital. He was admitted to S.V. Hospital 12-9-86 and expired 12-14-86.

[redacted] - male - 11-10-86 to 11-11-86 - Date of death 11-11-86
Patient diagnosed with small cell carcinoma of lung 5-10-83 and received radiation and chemotherapy. Patient admitted 11-1-86 in what appeared to be terminal care, patient stabilized and on 11-67-86 was placed in a Transitional bed in our hospital. On 11-10-86 his condition deteriorated and he was placed back on acute care and expired 11-11-86.

[redacted] - female - 4-29-86 to 5-6-86 - Date of death 5-6-86
Patient diagnosed metastatic carcinoma of breast at Mayo Clinic 11-82. In 1985 it had metastasized to the lung, ribs and spine. She was placed on hormonal therapy at Mayo Clinic. In April of 1986 it had metastasized to the liver with ascites. This was diagnosed at the Mayo Clinic. The patient was admitted to our hospital 4-22-86. Her condition stabilized and she was transferred to Swing Bed status on 4-29-86. Her condition deteriorated and she entered terminal status and expired on 5-6-86.

[redacted] - female - 1-30-86 to 2-11-86 - Date of death 2-11-86
Patient diagnosed at Mayo Clinic with inoperable adenocarcinoma head of pancreas 8-2-85. Patient admitted to our hospital 9-23-85 for complete gastric outlet obstruction and transferred to Mayo Clinic. She was admitted to acute care on 1-=20-86 and after her condition stabilized she was transferred to Swing Bed on 1-30-86. Patient's condition deteriorated to terminal status and she expired 2-11-86.

[redacted] - male - 5-9-86 to 5-15-86 - Date of death 6-8-86
Patient diagnosed as having bronchogenic carcinoma of the lung in July 1985 at Mayo Clinic. He received chemotherapy at Mayo Clinic. He was admitted to S.V. Hospital 10-20-85 to 10-23-85, 11-1-85 lto 11-6-85, 11-11-85 to 11-18-85, 4-3-86 to 4-8-86, Swing Bed 4-8-86 to 4-30-86, and re-admitted to acute care on 5-9-86 in terminal state and on 5-15-86 was admitted to Transitional bed and expired on 6-8-86.

[redacted] - 5-6-86 to 5-14-86 - Date of death 5-14-86
Patient diagnosed carcinoma of lung in August 1985 at Mayo Clinic. On 4-28-86 patient found to have cerebral metastases, bony metastases, liver metastases and bone marrow metastases at Mayo Clinic and therapy was quite ineffective. The patient was admitted to S.V.Hospital under Swing Bed status for terminal care on 5-6-86 and expired 5-14-86.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

[redacted] - 4-24-86 to 4-28-86 - Date of death 5-23-86 #18-586
Diagnosis of rectal carcinoma, hypernephroma and probable liver metastases was made at Mayo Clinic on 11-25-85. The patient had surgery at this time and was followed by Mayo Clinic. On 4-24-86 she was admitted to S.V.Hospital in terminal status and on 4-28-86 was transferred to Spring Valley Nursing Home where she expired on 5-23-86.

[redacted] - female - 9-29-86 to 10-5-86 - Date of death 10-5-86
This patient was diagnosed as having cancer of the lung 7-28-86 at Mayo Clinic. Since then she was found to have metastases to the brain and received radiation treatment at Mayo Clinic. The patient was admitted to a Transitional Bed at S.V. Hospital for terminal care 9-13-86 and because of severe pain was admitted to an acute bed on 9-20-86. On 9-29-86 she was transferred to Swing Bed status and expired on 10-5-86.

[redacted] - 10-2-86 to 10-15-86 - Date of death 10-27-86 - female
Patient admitted by ambulance through the emergency room with acute cerebrovascular accident on 10-2-86. The patient's condition stabilized and she was transferred to the Spring Valley Nursing Home on 10-15-86. On 10-27-86 the patient suddenly became unconscious and expired with diagnosis of acute cerebrovascular accident and respiratory failure.

[redacted] female - 4-17-86 to 4-19-86 - Date of death 4-19-86
Patient admitted from Spring Valley Nursing Home with acute cerebrovascular accident and comatose on 4-11-86. The patient's condition continued to deteriorate and she was placed on Swing Bed status 4-17-86 and expired on 4-19-86.

[redacted] - female - 9-11-86 to 9-17-86 - Date of death 9-18-86
Patient transferred here by ambulance to emergencyroom with acute cerebrovascular accident on 9-11-86. On 9-2-86 she was discharged from LaCrosse Lutheran Hospital. She appeared to be in terminal status upon admission to S.V. Hospital. Her condition continued to deteriorate and she was transferred to Swing Bed on 9-17-86 and expired 9-18-86.

[redacted] - female - 9-11-86 to 9-17-86 = Date of death 9-18-86
Patient admitted through emergency room lethargic and semi-conscious on 1-19-86 with diagnosis of congestive heart failure. The patient's condition was stabilizing and on 1-31-86 was transferred to Ostrander Nursing Home. Patient suddenly and unexpectedly expired enroute to nursing home.

[redacted] male - 1-18-86 to 1-23-86 - Date of death 1-25-86
Patient admitted 1-18-86 through emergency room with diagnosis of pneumonia, chronic obstructive pulmonary disease and congestive heart failure. Patient and relatives requested patient to be allowed to go home although he appeared in terminal status. Patient discharged 1-23-86. On 1-25-86 patient brought to emergency room unresponsive and expired upon admission to emergency room.

[redacted] - female - 5-10-86 to 5-10-86 - Date of death 5-10-86
Patient admitted from Ostrander Nursing Home with diagnosis of septicemia, urinary tract infection, acute pulmonary embolus on 5-10-86. An hour after admisison the nursing staff found the patient pulseless. CPR was instituted at 9:50 a.m. and code was stopped at 10:35 a.m., which was time of death.

CMH
COMMUNITY MEMORIAL HOSPITAL
and Convalescent & Rehabilitation Unit
855 Mankato Avenue
Winona, MN 55987-4894
(507) 454-3650

October 20, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper:

In response to the statistical data sent to us by HCFA, Community Memorial Hospital would like to reply as follows.

The analyzed data that HCFA sent us was very difficult to assess. The numbers did not correspond with our statistics. "All Causes" for instance, equaled 1,011 cases with 141 deaths giving our facility a 14% mortality. The total number of cases, however, equaled 727 with 141 deaths equaling 20% mortality. Adding all of the cases submitted by HCFA that qualify as a death for our facility equaled 138 deaths. Of the 138 listed deaths, 33 of those deaths did not occur at our facility.

If we use the "All Causes" number of cases and the total number of listed deaths that actually occurred at our facility out of 1,011 cases, there were 105 deaths equaling a 10% mortality. We do not have an accurate means at this point to determine how HCFA came up with specific death cases, i.e., what cancer cases were used, etc.

The methodology that was used appears to be somewhat illogical making it difficult to assess the data and compare it to the statistics that our facility has.

Community Memorial Hospital secures its data from all discharge information on inpatients only. The number of medicare discharges we had for the year 1986 were 1,540. The number of medicare deaths for 1986 were 409. The number of discharges for our facility in 1986 were 4,557. The number of deaths for our facility in 1986 were 123. With 109 deaths and 1,540 medicare discharges, our facility (according to our statistics) has a 7% mortality rate. Our total hospital mortality rate is 3%. Eighty-nine percent of our deaths are from medicare patients and 11% of those deaths are non-medicare patients.

We have contacted the Minnesota Hospital Association. We were told that a universal sampling of all medicare admissions at our hospital was used, and that it does not include patients with multiple visits. It appears HCFA only took the last hospital admission for 1986 for each medicare beneficiary. This explains some of

the discrepancies between our admission statistics and HCFA's. The 16 categories used did not equal the "All Causes" category. Those 16 categories only represented approximately 70 to 80 percent of the cases. We were also notified that the predicted mortality rates were hospital specific, not regional or national.

In conclusion, we would like to reiterate that fact that we found HCFA's data and methodology confusing. Our facility feels that the method of calculating the death rates has no real relationship to the quality of care rendered to inpatients at our facility.

At Community Memorial Hospital, we have an excellent quality assurance program in place which includes monthly review of all mortalities occurring at our facility.

Sincerely,

R. L. Metz, Administrator

RLM:kpl

COMMUNITY MEMORIAL HOSPITAL ASSOCIATION
CLOQUET, MINNESOTA 55720

JAMES J CARROLL Administrator

Date: October 22, 1987

TO: HEALTH CARE FINANCING ADMINISTRATION
HEALTH STANDARDS & QUALITY BUREAU
HOSPITAL MORTALITY INFORMATION
P.O. BOX 26684
Baltimore, Maryland 21207

FROM: Community Memorial Hospital
Skyline Boulevard
Cloquet, Minnesota 55720
Provider #: 240045

RE: Response & comments to HCFA Mortality Report

1. [redacted] was not admitted to this hospital.

2. The HCFA report covered 80% of the total deaths in our hospital in 1986.

3. Of the 47 deaths in the HCFA report,3 expired in a nursing home.

4. Every death is reviewed for any comments or recommendations against standards of care for that particular type of case as part of our ongoing Quality Assurance Program, since any quality problem can only be determined by an indepth review of medical records, regardless of mortality rates.

James J. Carroll
Administrator

Cuyuna Range Hospital and Home
Dedicated to you everyday. Crosby, MN 56441
Telephone: (218) 546-5147

Medicare Provider Number: 240137

Comments on the HCFA Mortality Data

The data used by HCFA indicate that a total of 41 Medicare patients admitted to the Cuyuna Range District Hospital died within 30 days of admission. Of these, 30 died while still a patient of the hospital, while 11 died after discharge. Our records indicate that 587 Medicare admissions occurred in 1986.

The 11 deaths following discharge represent 2 transfers to a Veterans Administration facility and 9 transfers to a nursing home.

Despite the fact we have a high Medicare population in addition to transfers to the hospital from the attached nursing home, and utilization of swing beds, our hospital mortality rate falls within the normal range.

One error was noted: [redacted]

The admission date should be 6/3/86 rather than 5/27/86.

Cuyuna Range Hospital and Home
Dedicated to you everyday. Crosby, MN 56441
Telephone: (218) 546-5147

Medicare Provider Number: 240137

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Despite the fact we have a high Medicare population in addition to transfers to the hospital from the attached nursing home, and utilization of swing beds, our hospital mortality rate falls within the normal range.

One error was noted [redacted]

The admission date should be 6/3/86 rather than 5/27/86.

EVELETH FITZGERALD COMMUNITY HOSPITAL

PHONE 744-1950

Eveleth, Minnesota 55734

October 21, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

This is in response to your communication of September 21, 1987 regarding mortality statistics of Medicare patients admitted to our facility for the year of 1986.

We would like to respond to the following cases as follows:

CEREBROVASCULAR ACCIDENTS, 3 cases, 100% mortality rate with a predicted rate of 4-85%.

1. [redacted] This patient was a [redacted] female, admitted through the Emergency Room with a massive cerebral thrombosis with infarction. She was totally unresponsive after admission, her hospital course was one of progressive decline.

2. [redacted] This was an [redacted] female who was transferred from another facility after having a cerebral embolism, completely paralyzed and comatose. On high flow oxygen. Per family's permission, it was decided to discontinue treatment and the patient had a progressive, downhill course in a state of coma.

3. [redacted] This was an [redacted] woman transferred from another facility, there having a diagnosis of nausea and vomiting from gastroenteritis. After transfer, developed hematuria, secondary to subsiding hemorrhagic cystitis and urethritis. A cystoscopy was performed. She suffered a CVA and expired 13 days thereafter.

RENAL DISEASE, 1 case, 100% mortality rate, predicted range 1-97%.

1. [redacted]. [redacted] gentleman was transferred from another facility with uremia in semi-comatose state. BUN was elevated at 136, going up in excess of 156 during hospitalization. Treatment was to no avail. He developed respiratory arrest and cardiac arrest and expired.

We would like to point out that 90-95% of our Medicare and Medicare HMO admissions are transferred to our facility for convalescent care. With this, our mortality rate may be expectedly high.

Sincerely,

Donald L. Werner, M.D.
Chief of Staff
DLW:bj

Fairview Ridges Hospital
A Division of Fairview

201 Nicollet Boulevard
Burnsville, MN 55337
612-892-2000
Fax 612-892-2107

Mark M. Enger
Vice President and Administrator

October 13, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear William Roper, M.D.:

This letter is in response to the Mortality Rate Report. We have enclosed for you a corrected report. We also would like further clarification on one aspect of this report. There are 15 patients out of the total 49 patients represented on this mortality report that did not die at Fairview Ridges Hospital. Where and how is this information reflected in the "actual mortality rate" and "range of predicted mortality rates"? For example, is a patient who dies from a car accident or an unrelated illness after his/her discharge from the hospital reflected in the above statistics, or are only patients who die from the same illness reflected in the mortality rates? You can understand our position that unrelated deaths should not be reflected in the hospital's mortality rates.

We would appreciate a response **prior to the publication** of these comments or printing of the mortality reports.

Thank you.

Sincerely,

Mark M. Enger

Mark M. Enger
Vice President and Administrator

MME:sa

cc: Paul Bowlin, M.D.
Dottie Jung

Medicare Provider Number 240207

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Fairview
Southdale Hospital
A Division of Fairview

6401 France Avenue South
Edina, MN 55435
612-924-5000
Fax 612-924-5012

October 26, 1987

Medicare Provider #24-0078

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
Washington, D.C. 20201

Dear Dr. Roper:

Fairview Southdale Hospital is pleased to respond to your release of Medicare mortality data received by this hospital in last September, 1987.

Fairview Southdale Hospital and its medical staff have developed a comprehensive quality assurance program that includes review of all hospital deaths and appropriateness of admission and discharge. At the time of this writing, we have not developed a system to review deaths occurring post hospital discharge. We note that of the 332 deaths listed for Fairview Southdale Hospital, 95 occurred within 30 days post discharge. This represents a post discharge mortality percentage of 28.6%. We are in the process of analyzing these 95 post discharge deaths. However, time constraints will not allow us to complete this process in time for this report to you. We suspect that the large majority of these post discharge deaths represent end stage disease with death being the expected outcome.

Of course, we recognize the possibility that one or more of the post discharge deaths could be unrelated to the medical conditions present during hospitalization.

Our medical records department has verified that the total number of deaths are correct. Minor discrepancies regarding dates were noted in two patients. These do not significantly affect the statistics.

Specific services present in our hospital that might influence specific mortality rates are listed below.

1. We have an active oncology service with one floor dedicated to the care of cancer patients with advanced disease.

2. We have a very active cardiology program that includes cardiac catherization services and open heart surgery services. Therefore, we tend to admit and retain within the hospital large numbers of severely ill cardiac patients. Our active cardiology staff, using the latest medical technology and treatment techniques, track large numbers of acute and chronic cardiac patients.

3. Our active, high volume emergency room attracts large numbers of trauma cases from our South and West metropolitan service area. These severely injured individuals may be reflected in our overall mortality statistics.

We are pleased to note that Fairview Southdale Hospital's actual mortality rates were well within the range of predicted mortality rates in all categories except one, that of severe chronic heart disease. In that category our mortality rate was slightly below the range of predicted mortality rates. We have not specifically reviewed those 130 deaths in the severe chronic heart disease category. However, we suspect that a lower than predicted death rate reflects the intensity of medical and technological care given those patients by our very aggressive cardiology staff.

In the category of pulmonary disease, Fairview Southdale's actual mortality rate was in the high end of the range of predicted mortality rates. These 176 charts will be reviewed by our quality assurance staff for any common factors that might be present. At this writing, I have no additional factual information on this category.

We have a number of general comments to make regarding your release of hospital mortality data:

1. Hospital mortality rates, as listed, are not measures of hospital performance and under no circumstances should they be used as a basis for judging quality of care in any institution. Quality judgements can be made only after reviewing information contained within the patient's medical record.

2. Since the information is not severity indexed, comparisons across institutions are not possible.

3. We disagree with your decision to credit a hospital with post discharge deaths even though the patient may have been out of the hospital for as long as 29 days before the death occurred. You present no evidence that this additional information will accomplish your goal as stated at the bottom of the first page of your 9/21/87 letter. We request that you delete those post discharge deaths from your public data release scheduled for December, 1987.

4. The significance of the "range of predicted mortality rates" is limited by our lack of knowledge of your statistical methodology in producing the "range".

Despite the above criticisms, we find the information useful internally and plan to continue our own internal review of this date to establish its usefulness in our institutional quality assurance and peer review process.

We appreciate the opportunity to respond prior to your release of this data.

Sincerely,

Douglas N. Robinson
Vice President & Administrator

Gaylord Community Hospital
Gaylord, Minnesota

Provider Number: 24-0165

The hospital's comments consisted primarily of annotations to the patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish the comments because of the numerous patient identifiers contained in the data.

Hennepin County Medical Center
701 Park Avenue South
Minneapolis, Minnesota 55415

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

Hennepin County Medical Center, Identification Number 240004, is responding to the mortality data for 1986 Medicare patients to be released by HCFA.

The data used by the Health Care Financing Administration indicate that 240 of 2093 Medicare patients died within 30 days of admission. Their data show that of these, 175 died while still a patient in the hospital, while 65 died after discharge. The records at Hennepin County Medical Center indicate that 269 of 3340 Medicare patients died. We have no way to determine the number of deaths after discharge. The corrections we have made from our records to the data used by the Health Care Financing Administration are attached.

The methodologies used by HCFA and the hospitals to collect data bases are different. Therefore, accurate verification of the data cannot be done with our data base.

The following are some examples where information is excluded or different from HCFA's data:

- Patients who are hospitalized longer than 30 days.
- Patients who are HMO Medicare.
- Patients who transferred to a Veterans Administration Hospital are considered by HCFA as deaths from the originating hospital as VA does not submit data to HCFA.
- The total number of cases is different. HCFA excluded previous admissions during the year.

HENNEPIN COUNTY
an equal opportunity employer

We verified the statistical data in only two categories: Severe Acute Heart Disease (HS) and Sepsis (SE).

In the Severe Acute Heart Disease Category, HCFA shows 41 deaths in 74 total cases with a mortality rate of 55%. 39 deaths occurred at Hennepin County Medical Center, while 2 deaths were after discharge. Our own data show 51 deaths in 102 total cases for a corrected mortality rate of 50%. 48 deaths were in the hospital, while 3 were after discharge.

In the Sepsis Category, the HCFA data show 11 deaths of 26 cases for a mortality rate of 42%. Nine of the deaths were at Hennepin County Medical Center, while 2 were after discharge. Our own data show 14 deaths in 37 total cases for a corrected mortality rate of 38%. 12 of the deaths were in the hospital and 2 were after discharge. The clinical data was reviewed in 10 of 11 cases by a physician. The average age of the patients in this category is 85. Of the 10 cases reviewed, 7 came from long-term care facilities and 3 were brought in by paramedics. In all 10, death was an anticipated outcome on admission and more than half were do not resuscitate. Sepsis was the reason for admission for all 10 patients and the cause of death for 8 patients who died in the hospital. The cause of death for the patients who died outside the hospital is not obtainable. The patients in this category had, on the average, 2 complicating or co-morbid conditions. Five of the patients had complicating conditions that are not included on the Health Care Financing Administration complication list.

Sincerely,

Charles F. Richards

Charles F. Richards
Sr. Associate Administrator

October 26, 1987

Hospital = 240004 HENNEPIN COUNTY MEDICAL CENTER MINNEAPOLIS, MINNESOTA

Details of Complicating/Co-morbid Conditions for Diagnostic Category of Sepsis

Patient Name	Considered by HCFA	Not Considered by HCFA
[redacted]	History of cancer of the uterus-cancer	
[redacted]	Hypertension-hypertensive heart disease Dementia-psychosis Renal failure-renal disease	
[redacted]	Stage IV leukemia-cancer	
[redacted]	Cancer of the colon-cancer	
[redacted]	Cirrhosis with ascites-liver disease Renal failure-renal disease	Peritonitis Bronchopneumonia
[redacted]	(chart not available for review)	
[redacted]	Chronic lung disease-chronic pulmonary disease Arteriosclerotic vascular disease	Malnutrition Pericarditis
[redacted]	Renal necrosis-renal	Aspiration pneuonia Intravascular coagulopathy Parkinsonism
[redacted]	Chronic urinary tract infection-renal disease Alzheimer and dementia-psychosis	Anemia
[redacted]		Alcohol dependence

October 26, 1987

Hospital = 240004 HENNEPIN COUNTY MEDICAL CENTER MINNEAPOLIS, MINNESOTA

HIC Number	Patient Name	Data Corrections
[redacted]		Date of death wrong, should be 5/24/86.
[redacted]		Date of death wrong, should be 12/3/86.
[redacted]		Date of death wrong, should be 8/21/86.
[redacted]		Name should be SIMMS, not SIMS.
[redacted]		Date of death wrong, should be 6/19/86.
[redacted]		Date of death wrong, should be 1/30/86.
[redacted]		Category wrong, should be SE.
[redacted]		Duplicate. Duplicate of next case on listing (Conley). Same HIC Number, age, sex, dates of admission and discharge, principal diagnosis code and principal procedure.
[redacted]		Last admission and discharge dates should be 12/23/86 to 12/30/86.
[redacted]		Last admission and discharge dates should be 5/4/86 to 05/4/86. The patient died in the hospital.
[redacted]		Last admission and discharge dates should be 9/19/86 to 10/1/86. The patient died in the hospital.
[redacted]		Name should be WONG, not FONG.
[redacted]		Last admission and discharge dates should be 3/5/86 to 3/14/86. The patient died in the hospital.
[redacted]		Last admission and discharge dates should be 11/22/86 to 11/28/86. The patient was discharged alive and we cannot verify the date of death.
[redacted]		Last admission and discharge dates should be 7/15/86 to 7/27/86. The patient died in the hospital.
[redacted]		The patient was discharged alive to a nursing home. We are unable to ascertain if the patient died later that same day.
[redacted]		The patient was discharged alive 12/26/86. We are unable to ascertain if the patient died later that same day.
[redacted]		The age should be 84.
[redacted]		The principal diagnosis should be 427.41.
[redacted]		The name should be [redacted]
[redacted]		The category is wrong, should be SE.
[redacted]		The admission date should be 1/9/86.

Hennepin County Medical Center
701 Park Avenue South
Minneapolis, Minnesota 55415

October, 1987

HCMC PRESS RELEASE

Hennepin County Medical Center is a large, acute-care teaching hospital currently operating 389 beds; it is located downtown Minneapolis, Minnesota across the river from the affiliated University of Minnesota Medical School. It is a regional trauma center and receives more than 70,000 visits a year to its emergency department. Annual inpatient admissions average between 15,000 - 16,000.

The hospital also operates 36 clinics where more than 175,000 outpatient visits are recorded annually. In addition, the hospital provides one of three burn centers in the state, a Level III newborn intensive care unit, and one of three kidney transplantation services in Minnesota.

According to the Health Care Financing Administration (HCFA) data on 16 diagnostic categories in Medicare patients, Hennepin County Medical Center's (HCMC) actual mortality rate falls at the low end of the predicted range for comparable hospitals. In no diagnostic category does HCMC's rate exceed the predicted range, and in two categories, it falls below the range.

We received HCFA's data less than a month ago while we were in the middle of a demanding and time-consuming conversion to a new hospital-wide computer system. For that reason, we knew we would be unable to comply fully with HCFA's request for data verification and chose to verify the data of two diagnoses which placed us at the high end of the predicted range.

Our in-depth review of these diagnoses -- Severe Acute Heart Disease and Sepsis -- revealed several data discrepancies. HCFA data show 41 deaths, 74 cases, 55% mortality in the Severe Heart Disease category; HCMC data show 51 deaths, 102 cases, 50% mortality in that category.

Similarly, in the Sepsis category, HCFA shows 11 deaths, 26 cases, 42% mortality; HCMC shows 14 deaths, 37 cases, 38% mortality.

We acknowledge that the HCFA data regarding HCMC mortality rates (whether verified or not) appear favorable to this hospital. Nevertheless, we are concerned that without proper context, any figures regarding hospital mortality rates may serve to mislead rather than inform the public.

Therefore, we strongly recommend that hospital mortality rates be made public only with accompanying information clarifying the following:

1. The data were collected in Medicare patients only, meaning that the patients were over 65 and/or frequently suffering from an already severe medical handicap or condition.

2. The type of hospital where the patient died. HCMC, for example, is a receiving center for all cardiac arrest patients, who fall into the Severe Acute Heart Disease category. Patients who have been resuscitated within our ambulance service area are brought to this hospital, i.e., they have already "died" once and heartbeat has been restored.

3. The average age of the patients should be emphasized. Just indicating that these are Medicare patients does not provide adequate qualifying information for individual categories. Basically healthy, vigorous people who are either eligible for Medicare or approaching the age of eligibility should be provided a larger frame or reference.

   For example, in the HCMC data regarding Severe Acute Heart Disease, the average age of the patients was 75.8. In the Sepsis category, the average age was 85.

4. It should be emphasized that the categories listed are the Admitting problem categories only and do not reflect the other severe, and often multiple, medical conditions that exist in these patients.

   For example, in the HCMC data regarding Sepsis, many of the patients were on DNR (do not resuscitate) status and were not expected to live when they were admitted. Most also suffered from a variety of other severe, life-threatening conditions such as end-stage cancer or renal disease.

   If proper context, interpretation, and perspective are provided for the HCFA data, it will serve to provide the public with useful information regarding the complexities of health-care delivery in today's dynamic and competitive environment. Hennepin County Medical Center fully supports such efforts and will be happy to provide additional information to help consumers understand the significance of this and other healthcare information.

HOLY TRINITY HOSPITAL
115 WEST 2ND STREET
GRACEVILLE, MINNESOTA 56240
(612)748-7223

October 28, 1987

Mr. William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. BOX 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Thank you for allowing us the opportunity to review the HCFA mortality data. As you can seen by the enclosed worksheet, our records varied from HCFA records in five areas. Our hospital records show 28 in hospital deaths and 4 post hospital deaths and a variation in diagnostic criteria.

We note that our records show one death (in hospital) which is not on your print out.

We object strongly to the assumption that quality of care can be measured merely by "expected death rates", especially since there is no measure of severity and other complicating factors. The age groups represented in our report show: 12 over age 90, 10 over age 80, 4 below age 80 had terminal CA, 3 below age 80 had HS, 1 below age 80 with HL, 1 below age 80 with PN, 1 below age 80 with HM.

If further clarification is needed, please phone (612) 748-7223.

Sincerely,

Sr. M. Paula Leick, OSB.

Sister M. Paula Leick, O.S.B.
Administrator

Hospital Identification #: 240065

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	5		5	
CE -- Cerebrovascular Accidents	1		1	
GC -- Gastrointestinal Catastrophes	0		* 1	
GI -- Gastrointestinal Disease	2		2	
GU -- Urologic Disease				
GY -- Gynecologic Disease				
HL -- Low Risk Heart Disease	3		* 2	1
HM -- Severe Chronic Heart Disease	1	2	1	2
HS -- Severe Acute Heart Disease	5		5	
ME -- Metabolic/Electrolyte Disturbances	1		1	
OP -- Orthopedic Disorders				
PN -- Pulmonary Disease	6	1	6	1
RN -- Renal Disease	2		* 3	
SE -- Sepsis				
TR -- Severe Trauma	0		* 1	
OP -- Ophthalmalogic Disease				
UN -- Other Diagnoses	2		* —	
Total -- All Categories	26	3	28	4
	31		32	

**Deaths occurred in a year subsequent to the year of admission:

Our records show that one death occurred in 1986 from an '85 admission and one death occurred in 1987 from an '86 admission.

It seems acceptable to include either one or the other in 1986 statistics, not both. Both were not in hospital deaths, CE and ME.

HOLY TRINITY HOSPITAL
115 W. SECOND STREET
GRACEVILLE, MN 56240

Hospital Identification #: 240065

MN 71.1

IMMANUEL-ST.JOSEPH'S HOSPITAL

325 GARDEN BOULEVARD • MANKATO,MINNESOTA 56001 • (507) 625-4031

October 22, 1987

COMMENTS ON HCFA MORTALITY DATA

Immanuel-St. Joseph's Hospital
Mankato, MN 56001
Provider #24-0093

The data used by HCFA indicate that a total of 189 Medicare patients admitted to Immanuel-St. Joseph's Hospital in 1986 died within 30 days of admission. Of these, 131 died while still in the hospital, and 58 died after discharge. Data on events after discharge from the hospital are not available to us, so the accuracy of all the HCFA data cannot be determined.

Immanuel-St. Joseph's Hospital is a regional referral center which has an intensive coronary care unit and an intensive medical-surgical unit, a renal dialysis unit, and a hospice unit.

In one of the diagnostic categories, the hospital's actual mortality rate falls outside the range of the predicted mortality rate. In the category HM, severe chronic heart disease, HCFA data shows that 23 Medicare patients died within 30 days of admision to this hospital. Our own records show that 12 of these patients died while hospitalized and that 11 were discharged alive, six to nursing homes, four to home health care, and one to home with physician office followup. Of the 23 deaths, 21 were expected due to severity of illness or the patients' refusal to consider surgery or renal dialysis when indicated.

PHONE 507-642-3255

Madelia Community Hospital

121 DREW AVENUE SOUTH EAST Madelia, Minnesota 56062

October 20, 1987

William L. Roper, M.D.,Adm.
Department of Health & Human Services
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

In reviewing the statistics on Madelia Community Hospital mortality rates, a mistake was noted. Case [redacted] was duplicated in the print out. The patient HIC number was the same with two different surnames. [redacted] was a patient at the Madelia Hospital, while [redacted] was not.

I bring this to your attention since this inaccuracy could affect the final moratlity rate statistics for the Madelia Community Hospital.

Madelia Community Hospital, its' Governing Board, Management and Medical Staff are committed to giving quality care. We have reviewed these mortality statistics and feel that appropriate quality care was administered in each of these cases.

Sincerely,

Emily E. Kunz, Adm.

Emily E. Kunz
Administrator

EEK/dkl

MADISON HOSPITAL
820 Third Avenue
P.O. Box 184
Madison, MN 56256
612-598-7556

Richard L. Range
Administrator

October 26, 1987

Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

REFERENCE: HOSPITAL I.D. NUMBER 240143

Dear Sir:

In response to your information presenting mortality information about Medicare patients treated in the above-referenced I.D. number in 1986, I would offer the following comments.

The mortality data that you provided me indicated that 25 deaths have been subscribed to us for the year 1986. The breakdown of those deaths is as follows, according to our records:

1. Fifteen patients expired in our acute-care facility.
2. Two expired in our skilled swing bed unit.
3. One expired in our transitional care unit.
4. Six expired after being discharged from the hospital and transferred to a nursing home.
5. One expired at home after being discharged from the hospital.

(**Note:** Nine of the above-referenced admissions came from a nursing home situation, and two of those deaths were transfers back from a tertiary care center for terminal' care.)

In 1986, the Madison Hospital had 262 Medicare admissions, 261 Medicare discharges, and 18 Medicare deaths in the hospital.

A concern I have about the dependability of these kind of statistics is the broad range of predicted mortality rates. It would appear to me that the ranges that go from 0 to 100 percent would offer no significance to anyone. Another concern I have is what value there is in trying to determine death 30 days post discharge from anything. The fact is that that amount of time could induce death by a myriad of other circumstances totally unrelated to the last hospital stay.

Lastly, the biggest concern that I have for small institutions such as ours is the numbers of cases generated per diagnostic category are all too often very small. These small numbers tend to give an unrealistic actual mortality rate when calculated in percentage. Without that explanation to readers of this calculation, one could draw some unrealistic conclusions.

Thank you for the opportunity to comment. I trust that future publications of this data will be more sophisticated and the explanation more apparent as to what the results mean.

Sincerely,

Richard L. Range
Administrator

RLR/elm

cc: David Rykhus, President, Sioux Valley Service Corporation
Jeff Rheingans, Chairman, Madison Hospital Association

memorial

hospital and homes,



October 26, 1987

To Whom It May Concern:

Hospital ID # 240103

Although the mortality rate for Memorial Hospital, Perham, Minnesota falls within the range of predicted mortality rates for all diagnostic categories we feel it is of importance to comment on the following:

-Of the 34 patients who expired within 30 days of the last admission of 1986, 18 or more than 50% of these individuals resided in nursing homes at the time of death rather than in settings appropriate for persons of better states of health. These individuals are more debilitated and have a higher mortality rate due often to the number of comorbidities or coextisting conditions

-8 of these patients were terminally ill patients

-13 of the 34 patients or 38% had metastatic cancers or leukemias

-16 of the 34 were 81 years of age or greater

-We feel it is noteworthy that patients may seek a higher level of care while their conditions are deemed amenable but return to the local hospital for terminal care. Swing bed care and transitional care for terminal states are available and utilized within this facility and this is a consideration when persons seek care in the inevitable last stages of life.

-28 of the 34 patients had three or more significant comorbidities which would impact significantly on the mortality risk.

We appreciate the opportunity to comment on the data to be released in order to present a more complete representation of the information.

Sincerely,

Bonnie L. Johnson, RN
Review Coordinator

665 3rd Street S.W., Perham, Minnesota 56573 - 218 - 346-4500

Methodist Hospital

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore, MD 21207

Medicare Provider # 24053

Dear Dr. Roper:

Methodist Hospital, St. Louis Park, Minnesota, submits the following comments in response to the December, 1987, release of mortality data on Medicare patients treated in 1986.

The time and resources that would have been needed to check the accuracy of this data on a case-by-case basis were not available and because only a spot-check of the data was done, these comments do not include any specific error corrections.

Methodist Hospital does wish to take this opportunity to urge caution in any use of this data by the Health Care Financing Administration (HCFA) or any other persons. We raise this concern regardless of the fact that Methodist Hospital would not be disadvantaged by the release of this data. Methodist Hospital does not intend any separate public release of this data, nor will it use this data, for any external purposes.

Mortality data, regardless of its accuracy, is at best only a very crude indicator of quality-of-care. Even when adjustments for such variables as age, sex, and diagnosis are applied to mortality data, any implication of a relationship between mortality rates and hospital performance or quality is premature because the significance of these particular variables on the risk of death is unknown. Quality judgements require thorough review of individual records. Quality-of-care, which is of the utmost concern to our hospital, medical staff, and Board, can only be evaluated through the process of peer review of medical records. Our quality assurance program uses individual record review for monitoring quality-of-care. Over 95 percent of all acute inpatient charts are reviewed against pre-established quality assurance criteria.

Question is also raised about the inclusion in the data of patients who died within thirty days of admission to the hospital. The cause of death in these cases may be entirely unrelated to the episode of illness that required the hospitalization.

Also, mortality rates at any given hospital must be evaluated in the context of the services provided by each hospital. For example, Methodist Hospital has accredited oncology and hospice programs. It would not be unexpected to find a higher than predicted mortality rate for cancer patients from Methodist Hospital in some future mortality-rate data.

Thank you for the opportunity to comment on this data.

Sincerely,

Terry S. Finzen
President

/cld

Metropolitan Medical Center

900 South Eighth Street
Minneapolis, Minnesota 55404
612/347-4444

October 26, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Enclosed are Metropolitan Medical Center's comments in response to the mortality statistics sent to us by the Health Care Financing Administration. We understand these comments will be included as part of the publication planned by HCFA in December, 1987. We have also attached a separate report of corrections to the HCFA data for information.

Thank you for the opportunity to submit our comments prior to the public release of these statistics.

Sincerely,

Frank J. Larkin
Senior Executive Officer
Metropolitan Medical Center
Medicare Provider No. 24-0196

Enclosures

Metropolitan Medical Center

MMC

900 South Eighth Street
Minneapolis Minnesota 55404
612/347-4444

COMMENTS ON THE HCFA MORTALITY DATA

METROPOLITAN MEDICAL CENTER, MINNEAPOLIS, MINNESOTA

Medicare Provider No. 24-0196

DATA VERIFICATION

The data provided by HCFA indicate that 2,631 Medicare patients were admitted to Metropolitan Medical Center (MMC) during 1986. MMC's records indicate that 4,310 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to the hospital. 230 patients were reported to have died within 30 days of admission. Of these, 175 patients were reported to have died while still an inpatient and 55 died after discharge.

After review of the HCFA data, we verified that 176 patients died in the hospital and 53 died after discharge. Discrepancies found in the HCFA data are as follows:

- One patient indicated as a death in 1987 after a discharge in 1986 was actually readmitted in 1987. Patient should be excluded from the data.
- Two patients reported to have died in the hospital died after discharge.
- Three patients reported as deaths after discharge by HCFA actually died in the hospital (two reported with incorrect date of death and one with incorrect admission/discharge date).

It is impossible to determine the accuracy of the number of patients HCFA reported as dying after discharge because such post-discharge information is not included in the patient's medical record.

MMC'S MORTALITY RATE

MMC's actual mortality rate falls within the predicted mortality rates in all categories except gastrointestinal catastrophes and metabolic/electrolyte disturbances. The rate in these categories is below the predicted range. Correction of the apparent HCFA errors in the recording of deaths does not change MMC's placement in the ranges.

MMC'S QUALITY MANAGEMENT PROGRAM AND USE OF THE HCFA STATISTICS

MMC is committed to providing quality medical care and for several years has had an ongoing monitoring system to identify adverse events which may occur during a patient's hospitalization. These events do not by themselves signify a level of quality but are flags or indicators that suggest the need for closer review and analysis by the medical staff. Identified problems are addressed by individual physician proctoring, examination and revision of patient management protocols, changes in organizational structure systems, focused educational activities for individual physicians or groups of physicians and/or curtailment of physician privileges.

The statistics provided by HCFA are another indicator that we have used to identify areas requiring further review. It is not possible to simply review the statistics provided and draw conclusions about levels of quality. However, the statistics do suggest areas to review to determine if appropriate levels of care have been provided or if the patients treated by MMC are unusually complex and/or have other characteristics not taken into account in the report released by HCFA.

Deaths that occurred during hospitalization in 1986 have already been reviewed and assessed through MMC's ongoing quality monitoring system. The additional areas requiring further in-depth review include 1) deaths occurring after discharge and 2) low risk heart disease.

DEATHS OCCURRING AFTER DISCHARGE

This information has not been available to us prior to HCFA's release of these statistics and we believe careful review of these cases is needed. We would encourage HCFA to continue to provide this information on a more frequent basis so that it might be concurrently incorporated into MMC's existing quality review mechanisms. The following discussion of our findings must be viewed as preliminary conclusions because it is not possible to accomplish all of the necessary reviews, identify potential problems, and take corrective action within the 30-day comment period provided by HCFA.

Following correction of the HCFA data, 53 deaths occurred within 30 days of the patient's last admission to MMC out of a total of 229 deaths. We have initiated review of all these cases using criteria to assess: 1) the stability of the patients at discharge and the timing of the discharge 2) whether the death was expected on discharge; 3) whether the death was not expected but a significant possibility due to chronic conditions or a number of significant complications. The admission source and discharge disposition have also been tracked to give some insight into the overall condition of the patient prior to admission as well as check on MMC's discharge planning.

Preliminary Findings:

- In 42% death was the expected outcome at the time the patient was discharged and often family/patient wishes for "supportive care only" directed the transfer to home or a nursing home. In all of the remaining cases death was a very significant possibility due to underlying chronic conditions or a multitude of complications produced by the disease processes.

- 41% were admitted from nursing homes with existing chronic conditions.

- Discharge planning was thorough and timely in this group. 70% were discharged to nursing homes indicating the debility of this population. 15% went home with home health services. 4% went to an extended care facility. 9% went home but included in this category is a patient who was discharged against medical advice and expired two days after discharge. The other four patients came from their own homes with identified family support and returned there. 2% (one patient) went to a VA hospital due to benefits.

- Careful review of these deaths is being undertaken through our existing quality review mechanisms.

LOW RISK HEART DISEASE

Although the rate for this category falls within the predicted range, the rate is at the higher end of the range and we feel further investigation is warranted. A preliminary record review emphasizes the difficulty of relying only on the HCFA statistics to draw conclusions about quality. The HCFA data assumes all patients are "average" except for the characteristics such as principle diagnosis, selected complicating conditions, sex, age, number of admits in preceding 12 months and transfers to another hospital. We have identified a number of patients in this category with co-morbid conditions which would clearly classify them as relatively high risk patients, e.g. coronary artery bypass patient with renal failure. We encourage HCFA to develop severity indexing systems that more appropriately classify individual patients.

CONCLUSION

MMC mortality rates fall within acceptable ranges as established by HCFA. We are incorporating the HCFA information in our existing quality management program to improve the medical care provided to our patients with the intent to further reduce mortality and morbidity. We support the continuing efforts of HCFA to develop methodologies that will produce valid and useful information on the quality of hospital care for consumers. However, we believe that these statistics should be viewed as indicators to suggest areas for further review and not as measures of quality of care at a given hospital. Severity of illness must be one of the factors used before accurate quality comparisons can be made. MMC believes HCFA should develop more accurate and useful severity indexing systems as well as provide more timely post-discharge death data.

Metropolitan Medical Center

900 South Eighth Street
Minneapolis Minnesota 55404
612/347 4444

METROPOLITAN MEDICAL CENTER - Provider #24-0196
October 27, 1987

Revisions to HCFA Mortality Data for 1986

Based on our review of the mortality data for 1986, the following revisions are to be made to the HCFA data base:

PATIENT ID NUMBER (HIC)	SURNAME	*DC	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH	REVISIONS TO BE MADE
[redacted]		GU	03/13/86	03/14/86	03/16/86	DATE OF DEATH 03/14/86
[redacted]		HS	03/07/86	03/10/86	03/12/86	DATE OF DEATH 03/10/86
[redacted]		PN	11/21/86	11/25/86	12/11/86	DATE OF ADMISSION 11/26/86 DATE OF DISCHARGE 12/11/86
[redacted]		PN	12/18/86	12/29/86	01/12/87	DATE OF ADMISSION 01/03/87 DATE OF DISCHARGE 01/12/87 Remove patient from HCFA data base. 1987 admission & death.

* DIAGNOSTIC CATEGORY

UNDERLINE - Identifies data element to be revised.

Fairview
Milaca Hospital
A Division of Fairview

150 Northwest Tenth Street
Milaca, MN 56353
612-983-3131

Eleanor Starr
Administrator

October 23, 1987

COMMENTS ON THE HCFA MORTALITY DATA

Data Verification

The data used by HCFA indicate that a total of 43 Medicare patients admitted to Milaca Area Hospital died within 30 days of admission. Of these, 29 died while still a patient of the hospital, while 14 died after discharge. Our own records indicate that 283 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at Milaca Area Hospital is correct.

Our own records also indicate that of the 43 patients admitted, 23% had an underlying cause of terminal cancer, while HCFA data reflects only two patients with CA--the discrepancy occurs as we must code the actual cause for the admission. Ex: Dehydration. (Actual cause of death within 30 days would be the terminal cancer.)

Additional information that we feel should be released is that 47% of the patients listed as deaths are nursing home patients with terminal conditions. 100% of the patient deaths after discharge from the hospital (14 of 14) were transfers back to a nursing home and all 14 had underlying causes of heart disease, CVA, or CA.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

Interpretive Remarks

In two of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. We feel the data used is not valid especially for smaller hospitals as we do not have enough cases in some diagnostic categories to measure accurately. Ex: Since Milaca Area Hospital had only one patient in the diagnostic category of SE and that patient died, the mortality rate is automatically 100%. This reflects an inaccurate overall mortality rate also.

Respectfully submitted,

MILACA AREA HOSPITAL

Eleanor Starr

Eleanor Starr
Administrator

Note: Milaca Area Hospital is now operating as Fairview Milaca Hospital.

Minnesota Valley Memorial Hospital
Le Sueur, Minnesota

Provider Number: 24-0021

The hospital's comments consisted primarily of annotations to the patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish the comments because of the numerous patient identifiers contained in the data.

Mt. Lake Community Hospital

801 3rd Avenue
Mountain Lake, Minnesota 56159

Phone: 507-427-2511



October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

I have reviewed our hospital's mortality rate report you sent to us and we are within the Range of Predicted Mortality Rates in every catagory. I do feel, however, that a couple of observations would further clarify this information for the public who will receive it.

First of all, the youngest death on this list was 68 years old and had terminal cancer. Because of the possibility of a lengthly stay, he was transferred to a nursing home in the area for the last weeks of life. This is mandated by the health care system that now exists. We do not have hospice care at present, but we are exploring the feasibility of this program to aide this type of patient. There was no alternative to this outcome.

Since Mt. Lake is made up largely of an elderly population, you would expect a high mortality rate. Our people do, on the whole, live long, healthy lives. One of the patients listed was 102 years old, eight of them were 70 and over, and 12 were 80 and over, and eight were 90 and over.

Of the 30 deaths recorded for M.L.C.H., 14 came from nursing homes and 16 came from their own homes. The 18% mortality rate is well within the 11-24%. It should be highlighted that these percentages in individual catagories can be disproportionate for small hospitals because there might be only 1 or 2 cases in a certain diagnostic catagory and if one or both were to die, the actual mortality rate could be 100%. This does not necessarily mean the hospital does not have the facilities or expertise to treat this certain type patient. I think the public will need to be objective about this information and should be given all the other factors to make the information useful in any way.

Of the six low risk areas, we had patients treated in four. Under GI, we had 16 cases and only one expired or 6% as compared to the range of 1-35%. In the GU area, we had four cases and none expired. In the HL group, we had eleven cases and three expired, which is 27%. The range for that area is 1-44%. In the OP catagory, we had two cases and they both recovered.

Again, our hospital did not fall out of the norms in any catagory, but I am concerned that this information not be used for judgement on hospitals that have without exploration of the reasons. One year a small hospital can come out fine and the next can look as if some real problems are apparent. Percentages do not always tell the full story.

Thank you for allowing me the opportunity to express my views and concerns.

Sincerely,

Roxann A. Wellman

Roxann A. Wellman
Administrator

CC: Hospital Board Members
Minnesota Hospital Association

HOSPITAL = 240134 MOUNTAIN LAKE COMMUNITY HOSP MOUNTAIN LAKE MN

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	164	18 %	11 TO 24 %
CA - CANCER	6 2	33 %	9 TO 75 %
CE - CEREBROVASCULAR ACCIDENTS	4 2	50 %	7 TO 81 %
GC - GASTROINTESTINAL CATASTROPHES	3 2	67 %	3 TO 83 %
GI - GASTROINTESTINAL DISEASE	16 1	6 %	1 TO 35 %
GU - UROLOGIC DISEASE	4	0 %	0 TO 75 %
HL - LOW-RISK HEART DISEASE	11 3	27 %	1 TO 44 %
HM - SEVERE CHRONIC HEART DISEASE	9 3	33 %	5 TO 57 %
HS - SEVERE ACUTE HEART DISEASE	6 3	50 %	14 TO 81 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	5 1	20 %	1 TO 68 %
OP - ORTHOPEDIC DISORDERS	2	0 %	0 TO 100 %
PN - PULMONARY DISEASE	35	26 %	13 TO 42 %
RN - RENAL DISEASE	1	0 %	1 TO 97 %
TR - SEVERE TRAUMA	7	0 %	3 TO 60 %
UN - ?	4		

MN 106.2

NORTH COUNTRY HEALTH SERVICES
President: Leon C. Swanson

NORTH COUNTRY HOSPITAL
1100 West 38th Street
Bemidji, Minnesota 56601
218/751-5430

October 26, 1987

HCFA/EXEC.SEC.
87 OCT 27 PM 3:28

Department of Health and Human Services
Health Care Financing Administration
Attention: Publication of Hospital Death Rates
Dr. William L. Roper, Administration
Washington, D.C. 20201

Dear Dr. Roper:

Our hospital would like the following comments to be made with the publication of our hospital's death rates for 1986 in the December, 1987 Federal Registry.

Background

North Country Hospital is a not-for-profit 89-bed general acute care hospital serving a population of approximately 46,000 in a large geographic area in North Central Minnesota.

North Country Hospital has in recent years emerged as the single major health care institution in the north central portion of the state. The hospital serves as a referral center for the closest facilities - Red Lake Public Health Service Hospital, Cass Lake Public Health Service Hospital, and Clearwater County Memorial Hospital, Bagley, Minnesota. The closest tertiary care facilities are in Duluth (150 miles), Grand Forks (120 miles), Fargo (140 miles), and Minneapolis (225 miles).

In corporate terms, North Country Hospital is an affiliate of North Country Health Services. The corporation, through its affiliates and subsidiaries, also offers nursing home, congregate housing, home care and hospice services and is governed by a 15 person voluntary Board of Directors. The hospital's active medical staff numbers 37 members, 32 of which are board certified family practice or other speciality physicians. The hospital offers a broad range of services and features state of the art technology in all departments including nuclear medicine, CT scan, ultrasound, all relatively unique to our size hospital. Also, in the coming year, we will add echocardiography.

HCFA Mortality Study

Although mortality data for North Country Hospital is totally within HCFA's predicted mortality limits, analysis of the statistical model used indicates an inflexibility which leads to questionable reliability and validity of the results. Specifically, the HCFA analysis rests on the assumption that patients admitted to all hospitals are similar - a totally faulty assumption when applied to North Country Hospital.

For example: The hospital is located in a high unemployment, low income area with many residents uninsured or underinsured. Fifty percent of the area's households have incomes of less than $15,000 annually, and Bemidji has the lowest median family income of major cities in the state. Studies indicate these circumstances cause people to delay medical treatment and to be much sicker than average when hospitalized.

For example: The 1980 census shows a 71.6 percent increase over the prior census in the region's over age 85 population with obvious impact on mortality statistics. Elderly individuals are, of course, more susceptible to acute and chronic illness.

For example: We currently serve two Indian reservations and have been requested to provide secondary referral services to a third. The region's Indian population makes up an average 16-20 percent of our inpatient admissions. As a 1986 report on Indian Health Care from the Office of Technology Assessment indicates, the health status of Indians in the Bemidji area is "poor," and in the three year period centered in 1981, overall mortality of Bemidji Indians exceeded that of all races by 1.7. Although small PHS hospitals exist in Red Lake and Cass Lake, neither has an intensive care unit and neither does surgery; these cases plus all high risk obstetrics are referred to North Country Hospital.

For example: We operate a Hospice program with the obvious impact on mortality statistics.

Thus, we question whether death rates are a true measure of the quality of care rendered by an acute care general hospital, or more a measure of community statistical characteristics.

There were some errors in the death statistics for our institution. Several Medicare patients expired who were not listed in the data. Also, the dates of death were incorrect on some patients.

The definition of the "range of predicted mortality rates" against which our death rates are compared is not clear to us. This is especially unclear in the case of ophthalmologic disease where the published range of predicted mortality rates is zero to 100%.

There is another problem reflected in the ophthalmologic disease category. Medicare has mandated that cataract surgeries be performed on an outpatient basis. Cataract surgeries represent a very high percentage of ophthalmologic surgeries, and only those patients with severe co-morbidities or complications are admitted. The denominator of the fraction determining the death rate is the number of inpatients only. Thus, the death rate is not at all reflective of the deaths per number of surgeries performed.

Attention should be drawn to our death rates among severe trauma cases. Among thirty admissions for severe trauma in the Medicare age group, we had a very low 7% mortality rate. This speaks very well about the quality of care given to our trauma victims.

We do not understand why discharged Medicare patients who died up to 30 days after admission are included in the death rates attributed to the hospital. For example, the death of one discharged patient was due to a gun shot wound. Is this not again a measure of community statistical characteristics rather than a measure of the quality of hospital care?

In summary, we feel this sort of statistical analysis has value to identify potential areas for further evaluation and for quality assurance activities, but because of the model's inflexibility should not be used directly as a measure of hospital performance.

Sincerely,

L. C. Swanson
President

LCS/mb

North
Memorial
Medical
Center

3300 Oakdale North
Robbinsdale, Minnesota 55422
612/520-5200

October 22, 1987

Medicare Provider Number: 240001

RE: Comments on the HCFA Mortality Data

North Memorial Medical Center is a tertiary hospital. It is the Twin Cities metro area's largest private trauma center. Via North owned aeromedical and ground ambulance services, it receives patients from a 150 mile radius. North is a major center for cardiovascular services such as open heart surgery. North also operates a Medicare approved hospice program serving both hospital and home care patients. One quarter of total Medicare deaths involved hospice patients. Hospice patients accounted for half of cancer deaths, one quarter of pulmonary deaths, and about one in six heart disease deaths included in the study.

Given the increased severity of illness associated with these services, the medical staff and administration of North Memorial are pleased that the reported mortality rates are within the predicted range overall and in each of 16 diagnostic categories. Quality of care is of utmost concern to the North Memorial governing board, management, and medical staff. As part of the hospital's quality assurance program, all deaths are reviewed.

Mortality review is but one part of a comprehensive quality assurance program. The American Hospital Association and other groups such as the Joint Commission on Accreditation of Hospitals are investigating methods of evaluating hospital quality that rely on measures other than mortality. North will include these as part of future quality assurance activities. We are in agreement with Dr. Roper, HCFA's Administrator, in his statement that ". . .until we have developed additional statistical measures to deal with complex issues such as severity of illness, we cannot and do not recommend the use of the information by itself to make judgments about the quality of care in an individual hospital or to make comparisions among hospitals. . . . ."

Sincerely,

Scott R. Anderson
Chief Executive Officer

North Memorial Medical Center
Medicare Provider #: 240001

SUMMARY OF CORRECTIONS TO HCFA DATA

Admission/Discharge Date Change

Patient_ID_#	Patient_Name	HCFA_Data	NMMC_Data
[redacted]		Adm. 6/9/86	Adm. 6/24/86
		D/C 6/17/86	D/C 6/25/86
		Exp. 6/25/86	Exp. 6/25/86

Wrong Expiration Date

[redacted]	Exp. 4/11/86	Exp. 4/10/86
	Exp. 10/31/86	Exp. 10/10/86
	Exp. 6/30/86	Exp. 6/12/86
	Exp. 12/31/86	Exp. 12/14/86
	Exp. 3/5/86	Exp. 3/4/86
	Exp. 9/30/86	Exp. 9/19/86
	Exp. 4/10/86	Exp. 4/9/86
	Exp. 3/31/86	Exp. 3/19/86
	Exp. 2/28/86	Exp. 2/27/86
	Exp. 2/28/86	Exp. 2/17/86

Death Certificate Records Death at Another Hospital

[redacted] - Died at VA Med. Ctr. on 3/14/86
- Died at VA Med. Ctr. on 11/17/86

Wrong Age

Patient_ID#	Patient_Name	HCFA	NMMC
[redacted]		Age 87	Age 89
		Age 90	Age 89
		Age 89	Age 82
		Age 78	Age 77
		Age 75	Age 72

Wrong Diagnostic Code

[redacted]	Dx. 426.10	Dx. 426.0
	Dx. 85300	Dx. 82300

Unable to Verify as NMMC Patients

[redacted]

In addition, 42 patients in the HCFA sample were identified as HMO patients. These bills were submitted directly to the HMO for payment. NMMC was under the impression that these types of patients were not to be included in HCFA mortality statistics.

NORTHERN Itasca Hospital, Nursing Home
and Out-patient Services
258 Pine Tree Drive
Bigfork, Minnesota 56628
(218) 743-3177

October 9, 1987

MEDICARE # 24-0163

William Roper, M.D., Administrator
Health Care Financing Administration
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Subject: Mortality Information

Dear Dr. Roper,

We appreciate the opportunity to be able to respond to your selected mortality information for short-term acute hospitals, which includes our 20-bed rural, remote hospital in northern Minnesota.

We have reviewed the data at our Utilization Review/Quality Assurance meeting with the Physicians, UR/QA Coordinator, and the members.

They all agree that data for our small facility is too small a sample and therefore not statistically valid. Low admission rates in small, rural hospitals and the small number of cases, i.e., one to six, etc., in rural hospitals renders the analysis meaningless.

There is also great concern for generating valid statistical data based on using only the principal diagnosis with mortality statistics. Secondary diagnosis and associated chronic diseases are often determining factors as to why one patient dies and another does not.

For example, one patient who expired with a principle diagnosis of "atrial fibrillation" which is a low-risk health problem, also had a history of "severe congestive heart failure", which is a significant coronary artery disease and "myocardial infarction" as

a secondary diagnosis. Another patient who expired with a principle diagnosis of "GI bleeding" also had widely "metastatic carcinoma". Other patients who had expired with a principle diagnosis of "pneumonia" also had severe "coronary disease" and "carcinoma" as a secondary diagnosis.

We hope you will take these comments under consideration and thank you again for the opportunity to respond.

Sincerely,

Lillian Krueger, Adm.

Lillian Krueger, Administrator

LK:ms
Enc.
Copy: Medical Staff
UR/QA Coordinator
Minnesota Hospital Association

Northwest Medical Center

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

RE: Hospital Mortality Rates
Provider #: 240017

Dear Dr. Roper:

I am responding on behalf of Northwest Medical Center with comments relative to the impending release of hospital specific mortality data, as proposed in your September 21, 1987 letter.

We are pleased to have the opportunity in which to preview the statistics and mortality data prior to their public release, and to be able to provide comments which may be incorporated with this public release.

According to the data we have received from your offices, Northwest Medical Center falls within the range of predicted mortality rates in all 16 diagnostic categories.

We do have a concern over the potential use of this data, and thus its public distribution. As you know, the HCFA data base includes only those Medicare admissions that were the last admission of the year for each Medicare patient during 1986, and only includes those deaths that occurred within 30 days of this last admission, even if the death occurred after the patient was discharged, and even if the death was unrelated to the "cause" implied by the diagnostic category.

We do not feel that these statistics are an adequate or sufficient measure of comparative quality of care being delivered, nor do we feel that this data is an appropriate base from which to compare various hospitals. You mentioned in your September 21, 1987, letter that you intend to "make clear that the information on its own is not a complete measure of the quality of care at an individual hospital." You say it is not the intent that this data be used to "make judgments about the quality of care in an individual hospital or to make comparisions among hospitals." However, I think it is quite clear from the response to HCFA's release of similar data last year (without the opportunity of the hospital industry to provide advance comment) that this is exactly the type of use the public will try to make of this data.

120 LaBree Avenue South
Thief River Falls, MN 56701
Phone: (218) 681-4240

The only appropriate measure of quality of care being delivered should focus both on process as well as outcome, taking into account a far greater amount of patient specific variables than the fact that a patient died within 30 days of his/her last admission and happened to fall into one of the 16 diagnostic categories established by HCFA in this study. The age of the patient, the presence or absence of co-morbid conditions, the severity of the main illness, and a myriad of other impacting variables all contribute to the condition of the patient at the time care is being delivered. These more or less "demographic" variables should be evaluated along with the care related "process" variables to analyze the appropriateness of care being delivered.

Most all hospitals and healthcare providers do a review of this nature on an ongoing basis as part of their Quality Assurance Program. Facilities that are accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) establish criteria which assess the quality of care according to previously established appropriate quality "screens" for care being delivered to patients. Instances which appear not to meet these "screens" are reviewed by physicians on an individual case by case basis. This process is a far more appropriate process by which to internally monitor quality of care being delivered.

Again, we feel the release of the data we have had an opportunity to preview is untimely, as it does not put forth a usable template nor process by which to gauge quality. We appreciate the opportunity to review this data, however, and the opportunity to provide these comments. We at Northwest Medical Center remain more then happy to discuss our process of internal quality assurance with interested members of the public.

Sincerely,

Jon D. Braband
Associate Administrator

JDB:bw

cc: Management Council



October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Re: Provider Number 240006

In response to the HCFA mortality rates, our records indicate that the number of patients reported as having died in our hospital is correct and as far as can be determined the number of post discharge deaths is also accurate.

Our records also indicate that the number of Medicare patients admitted to our hospital in 1986 was 369, compared to the 217 cases included in the HCFA analysis.

Of concern, in respect to this analysis, is the reliability and validity of the statistical model HCFA has developed. HCFA has attempted to predict the risks of dying and mortality rates for different types of patients based on the relationship between a limited number of patient characteristics and the risk of death. The model fails to take into consideration a wide range of significant factors that could influence the risk of death. The exclusion from the model of these factors raises an important question as to the validity of the data.

In an effort to verify this data preliminary chart reviews were done on diagnostic category gastrointestinal disease because our mortality in this area was slightly above the predicted mortality rate. Seven patients fell into this category, four of which died while hospitalized. Of these four patients, death was the expected outcome in two of the cases and a significant possibility in the other two cases. One of these four patients died from a comorbidity and not of his gastrointestinal disease. In all four cases the patients and/or family members' wishes were honored that no extraordinary measures be taken to prolong life. Of the three patients who died after discharge, two had poor prognosis with very little chance of recovery.

Sincerely,

Joseph C. Cartney
Acting Administrator

1650 Fourth Street S.E. Rochester, MN 55904 507-285-8485

an equal opportunity employer

HEALTH CENTRAL
OF OWATONNA
HOSPITAL & HEALTH CARE SERVICES

903 South Oak Street
Owatonna, Minnesota 55060
507 451-3850

October 26, 1987

William Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

The importance of evaluating the quality of services provided to our community cannot be overstated. Data from a variety of external sources, including the hospital-specific mortality statistics provided by HCFA, serves as a valuable and relevant adjunct to our internal quality assessment activities. While this data is by no means, in and of itself, an indicator of quality, it does serve as a piece of information for use along with other data in our comprehensive quality assurance program.

The data your agency supplied allows us to compare and validate our diagnosis-specific mortality rates, and helps us draw the conclusion that our data is accurate. We fall within the expected ranges in all categories (and indeed, fall at the low end). Since a nation-wide data base was used to develop the ranges, we feel comfortable that no local or regional statistical bias exists that might compromise the statistical validity or reliability.

In short, we believe that the data you supplied is valuable for a hospital's use. Whether it will be fully understood and accurate assumptions drawn by the public-at-large remains to be seen. If so, your data will be valuable and worthy of your efforts; if not, however, a disservice will have been done.

We appreciate the opportunity to submit these comments. If we can offer additional information, we trust you will contact us.

Sincerely,

Richard Slieter /mKm

Richard Slieter
Chief Executive Officer

RS/mkm

pc: Sharon Whelan, Director of Patient Care Services
Fran Champion, Patient Information Manager

PAYNESVILLE COMMUNITY HOSPITAL

200 First Street
Paynesville, Minnesota 56362
612-243-3767

October 23, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Re: Mortality rates, Medicare provider #240122

Dear Sirs:

We have the following comments to make regarding the publication of mortality data for Paynesville Community Hospital, Medicare provider number 240122.

We have an attached nursing home facility. Seven of the deaths included in the mortality data were residents from the nursing home (either deaths in the nursing home or nursing home residents admitted to the Hospital). These patients, who were chronically ill and long term nursing home residents are at greater risk of death because of the natural aging process, debility caused by the aging process, and the presence of coexisting diseases.

#2. We also provide a long term unit in our hospital, commonly referred to as swing beds, and two of the patients included in the mortality tables did, in fact expire in the so-called swing bed unit.

#3. 5 of the patients included in the mortality tables were patients who had expired after long-standing bouts with diseases that are generally accepted as terminal and their deaths occurred after the patients had reach the end stages of their disease processes.

#4. 1 of the patients included in the mortality tables had an extremely complicated myocardial infarction who died only after developing multiple cardiac arrhythmias.

We at Paynesville Community Hospital are proud of the quality of care which we provide to our patients and believe that any proposed publication of mortality rates should also include the above comments.

Thank you.

Sincerely yours,

Pete Fisk RRA

Pete Fisk, RRA
Director of Medical Records

Redwood Falls
Municipal Hospital

100 Fallwood Road
Redwood Falls, Minnesota 56283
507/637-2907

October 23, 1987

Mr. William L. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

Re: Medicare mortality rates
Provider I.D.: 24-0124

Dear Mr. Roper,

We have received the selected mortality information that you plan to publish regarding Medicare patients treated at Redwood Falls Municipal Hospital in 1986. We appreciate the opportunity to comment on this selected information prior to publication.

In all categories, the actual reported mortality rate for Redwood Falls Municipal Hospital is within your range of predicted mortality rates. This is encouraging because, above all else, quality of care is of the utmost concern to the hospital's governing board, management, and medical staff. But we still wish to provide some comments for the record.

It is important that those who are exposed to the type of "raw" data provided in your report are aware of its limitations and how it can best be used. As you noted in your letter accompanying the data, "the information on its own is not a complete measure of the quality of care at an individual hospital...(and you) can not and do not recommend the use of the information by itself to make judgments about the quality of care in an individual hospital or to make comparisons among hospitals."

Mortality rates, by themselves, do not measure quality. This data is most appropriately used to guide or focus peer review and should be used principally to identify or suggest areas for further review. Quality issues can only be determined by an indepth review of medical records, through the process of peer review. As part of an overall quality assurance program, the chart of any patient who dies at Redwood Falls Municipal Hospital is reviewed by a member of the Medical Staff.

A quality assurance committee at the hospital meets monthly to review a host of data (including mortality data) that might provide some indication if there is a need for closer scrutiny. The committee makes routine reports to the medical staff and governing board, so that if any potential quality problems are identified, corrective action can be swiftly taken. Every effort is made to prevent problems from arising. Death is only one of many possible outcomes of treatment, and mortality review is only one of several important components of a comprehensive quality control program. The American Hospital Association and other organizations, including the Joint Commission on Accreditation, are investigating methods of evaluating hospital quality that rely on measures other than mortality rates.

The hospital recognizes that consumers have a legitimate interest in obtaining useful, reliable information on the quality of care that is available to them. But the statistical model used to develop the range of predicted mortality rates has several shortcomings in that it does not include measures of severity (i.e., how ill the patient was at the time of admission), whether the patient was transferred to the hospital from a nursing home, whether the patient was receiving treatment at home prior to admission, whether the patient had a terminal illness, or the patient's psychological state or general health status. At Redwood Falls Municipal Hospital only the sicker patients are admitted, the remainder are treated as outpatients. The hospital also participates in a hospice program that, by definition, cares for terminally ill patients. The ability of the mortality rate model to detect differences in quality has never been evaluated. At best, the model offers crude estimates of the expected risk of death.

Again, we appreciate the opportunity to comment. Redwood Falls Municipal Hospital is committed to providing quality care.

Sincerely,

James E. Schulte

James E. Schulte
Administrator

JES:ka

RHA

reaching out to serve

October 20, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
PO Box 26684
Baltimore, MD 21207

Dear Doctor Roper:

Riverview Hospital Association (240041) has reviewed the Mortality Reports submitted to us and noted that the "actual Mortality Rate" as reported are within the "Range of Predicted Mortality Rates". In order to audit the data reported, a significant amount of time and effort would be required. We believe that with the limited resources provided to health care facilities that those resources are better spent providing quality services to our patients rather than auditing the accuracy of this report.

We do appreciate the opportunity to comment before the reports are released to the public and may desire to make more specific comments in future years.

Sincerely,

Tom Lenertz
Executive Vice President

bja

riverview hospital association 323 south minnesota crookston, minnesota 56716 (218) 281-4682

ROCHESTER METHODIST HOSPITAL

201 West Center Street
Rochester, Minnesota 55902
Telephone 507/286-7890

COMMENTS TO HCFA REGARDING MORTALITY DATA

While we welcome HCFA's effort to assess institutional quality of care, this particular mortality-based method requires further validation before it can be considered useful. The scope for misunderstanding these data, both by consumers and professionals, is far too great and we caution anyone against using them as an index of quality. We do support the concept of developing objective measures of assessing quality care -- in fact, we are evaluating several methods in our hospitals -- but reliable measures are still years away. We welcome the opportunity to contribute to progress toward this goal.

Dale A. Rings, Administrator

SANFORD MEMORIAL HOSPITAL
& NURSING HOME • AN AFFILIATE OF CARONDELET COMMUNITY HOSPITALS
913 MAIN STREET • FARMINGTON, MINNESOTA 55024 • (612) 463-7825

October 29, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
Baltimore, Maryland 21207

Dear Sirs:

We have reviewed the mortality data forwarded to us. We have the following comments concerning the data.

1. On patient [redacted] we have no data on the death and can not verify the death date. Patient discharged from our hospital on November 26, 1986.

2. Patient [redacted] Age was shown as 72, correct age is 76.

The mortality rates are within normal predicted ranges for an acute care general hospital. Renal disease mortality rate is above normal due to only one patient listed with that diagnosis and that patient passed away from a chronic renal problem. We have found the general data given correct to the extent we can verify.

Sincerely,

Robert D Johnson

Robert D. Johnson
Chief Executive Officer

/ec



ISH-CAK-HA-BA
Chief Sleepy Eye

Sleepy Eye Municipal Hospital

400 Fourth Avenue N.W.
SLEEPY EYE, MINNESOTA 56085
Telephone (507) 794-3571

MEDICARE HOSPITAL MORTALITY DATA RELEASE FOR 1986

SLEEPY EYE MUNICIPAL HOSPITAL
PROVIDER NO. 024-0130

The following comments are submitted from our hospital:

Although our hospital fell within the expected range in all categories our records indicate that within several of the categories the hospital's actual number of cases or admissions is greater than the HCFA data shows. This would in reality lower our hospital's mortality rate or the percentage of deaths in that category even lower than reported.

Specific categories in error and the recalculated mortality rates are shown below:

	Total Cases		Mortality Rates	
Category	Reported	Actual	Reported	Actual
CA	12	28	50%	21%
GC	7	8	29%	25%
GU	13	21	8%	5%
HL	27	31	4%	3%
HS	14	24	50%	29%
ME	21	22	19%	18%
PN	25	45	20%	11%
TR	8	16	13%	6%

(Categories not listed above were reported correctly.)

Over 50% of the categories had data which was in error, the public should be cautioned against reaching any specific opinions based on data that may contain several errors.

Not included in the mortality data is whether a patient was admitted from a nursing home or through the emergency department. It is generally accepted within our industry that these patients would have higher mortality rates. In a small rural hospital, such as Sleepy Eye a large portion of our Medicare admissions come from a nursing home. Our hospital's active medical staff serve most of the residents in 2 nursing homes in Sleepy Eye and 2 other area facilities and a large portion of these residents are admitted to our hospital.

Also, it is important for the public, who may only see the actual percentage or mortality rate to know that in a small hospital this percentage is often based on very small sample sizes. Our hospital has several categories where the total admissions of that particular diagnosis are only 2, 8, or even 9 and 11. Any meaningful significance of data based on these small numbers should be questioned.

We would encourage any reader of our hospital data to contact the Administrator. This information should not be hidden from the public, as some may suggest, but the shortcomings and important factors not taken into consideration to develop the predicted rates must be stressed over and over to the public and consumers who might receive this information. Our address and telephone number can be found on our letterhead.

Scott E. Morin

Scott E. Morin, Administrator

Springfield Community Hospital
An Affiliate of VHA North Central, Inc

October 26, 1987

HCFA
Health Standards and Quality Bureau
Hospital Mortality Information
Box 26684
Baltimore, Md. 21207

Dear sirs;

Upon review of the hospital mortality data issued September 21, 1987 our hospital wishes to make the following comments.

First, of the 34 deaths reported, 2 patients died at nursing homes following discharge from the hospital. 4 other patients died in the SNF Unit of the hospital. It must be noted that of these six deaths all were in the last stages of life per their diagnosed disease.

Secondly of the 34 deaths reported, 11 patients were admitted directly from nursing Homes. It is of importance to note that with patients admitted from Nursing Homes it is generally a widely accepted fact that these patients will have a higher mortality rate.

Thirdly, of the 34 deaths one individual was admitted from the emergency room. It is widely accepted that these patients will also have a higher mortality rate.

Fourth, 16 of the 34 reported deaths had previous admissions within the last year at our hospital and others with the same diagnosis, once again noting many in the end stages of life.

Five of the diagnostic classifications, it must be noted, have few cases within the classifications which statistically will skew the percentages contained in this report.

Finally, we appreciate the opportunity to respond to this report.

Sincerely,

Michael Milbrath

Michael Milbrath
Administrator

MM/dw

ST. JOHN'S AND ST. ANSGAR HOSPITALS

510 S 4th STREET • FARGO, NORTH DAKOTA 58103
Telephone (701) 232-3331

715 N. 11th STREET • MOORHEAD, MINNESOTA 56560
Telephone (218) 299-2200

240026

October 26, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs,

The mortality report you sent to St. John's Hospital was checked and found accurate except for case [redacted] The information received indicated this patient had an enterectomy (Code 38.12) during her 11-3-86 to 11-5-86 hospitalization. On review of the record we find this procedure was not performed during this admission.

Sincerely,

Marjean Gilbert, Director of Support Services

St. John's Hospital
Provider No. 35-0020
35-6020 (CD)



A REGIONAL MEDICAL CENTER
1406 SIXTH AVENUE NORTH
ST CLOUD, MINNESOTA 56301
(612) 251-2700

To: William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D.C. 20201

From: John R. Frobenius, President
Saint Cloud Hospital
1406 Sixth Ave. No.
St. Cloud, MN 56301

MEDICARE PROVIDER NUMBER: 240036

Date: October 23, 1987

Subject: Comments on the HCFA Medicare Mortality Rate Report dated September 21, 1987

St. Cloud Hospital is a 489-bed not-for-profit regional medical center serving Central Minnesota under the sponsorship of the Sisters of the Order of St. Benedict and the Diocese of St. Cloud. Our role as the only health care provider in the community is unique and we feel tremendous responsibility to the St. Cloud community and the region we serve.

The scope and type of services provided at this facility covers a broad spectrum of healthcare. The acute inpatient services provided include an Alcohol and Chemical Dependency (A&C) program, Cardiology, Internal Medicine, Level II Nursery, Neurology and Neurosurgery, Obstetrics and Gynecology, Oncology, Ophthalmology, Orthopedics, Otolaryngology, Pediatrics, Psychiatry, Radiation Oncology, Plastic and General Surgery, Rehabilitation Unit, Urology and Renal Dialysis Services.

Outpatient services include a regional Emergency Trauma Unit, Home and Hospice Care services, Diagnostic Services including Neurology, Cardiology and Imaging testing, an Endoscopy unit,a Same Day Surgery unit, outpatient A & C, psychological and psychiatry services, and a Chronic Dialysis Unit.

A VHA affiliated hospital, we continually strive to update all programs and respond to our regional health care needs. Services which have had recent program additions include: cardiac services, cancer services, neurosciences, orthopedics, psychiatry and obstetrics/neonatal services.

As a hospital, we involve ourselves actively by providing a broad continuum of care to include such outpatient programs, such as: hospice, health education forums, and seminars, home care, family counseling services, joint home care facilities in outlying communities, through our schools with the hospital tours

program, AIDS task force, and our award winning seniors program called "Senior Helping Hands". These are but a few of the many programs we provide to support our region.

In a wider scope community service is demonstrated tangibly with the arrival of the refugees from Afghanistan who we are treating as part of our contribution to a world-wide relief effort. The St. Cloud Hospital was the first hospital in Minnesota to respond to this intensive effort.

Our Medicare age population makes up about 30-35% of our overall patient population. We are now finding that about one-third of that group is participating a some type of Medicare risk-sharing payment scheme which is not part of the data represented in the mortality report.

It is a routine part of our overall Quality Assurance mechanisms that many aspects of patient care are monitored and reviewed for appropriateness and quality of patient care. Included as only one part of those review mechanisms is mortality review. Appropriate assessment of hospital performance is dependent upon many variables and requires a look at many indicators of care of which mortality is but one. Scope of services and patient mix are important factors in predicting and analyzing the outcomes of healthcare so that a single indicator cannot be taken on its own to judge the performance of an institution.

A review of the cases for those patients listed on the Medicare mortality report was conducted. We were able to verify that those patients who were admitted and discharged from our facility on the dates specified were correct dates. We also verified the dates of death for those patients who died in our facility and found them to be correct. We did not attempt to validate the deaths of those patients who died after discharge.

mb

CARING FOR THE WHOLE YOU

ST. FRANCIS
REGIONAL MEDICAL CENTER

(612) 445-2322
325 West Fifth Avenue, Shakopee, Minnesota 55379

September 20, 1987

Mr. Thomas G. Marford
Director of Health Standards and Quality Bureau
Health Care Financing Administration
2-D-2 Meadows East Building
6325 Security Blvd.
Baltimore, M.D. 21207

Dear Mr. Marford:

The following are comments that should be published with the HCFA Mortality Data for St. Francis Regional Medical Center, Shakopee, Minnesota, I.D. number 240104 scheduled to be published in December 1987:

The data submitted to St. Francis Regional Medical Center by HCFA indicates that a total of 45 Medicare cases treated in 1986 died within 30 days of admission. Of these cases, 28 died prior to discharge, while 17 or 38% were alive at the time of discharge according to our records. HCFA compiled its mortality figures based on 333 cases. Our records indicate that 305 Medicare admissions occured in 1986.

In the category of "Cerebrovascular Accidents," St. Francis had six cases listed, three were alive on discharge, three expired prior to discharge. In the category of "Severe Trauma," the four cases were fractured hips, three cases were alive on discharge and one expired prior to discharge.

It is also impossible to determine the percentage of the 17 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

In conclusion, the medical center feels the HCFA Mortality Data does not present an accurate summary of mortality at St. Francis Regional Medical Center.

Thank you for including these comments with the HCFA Mortality Data.

Sincerely,

Richard J. Schreck

Richard J. Schreck RRA
Medical Record Department Head

St. Francis
Medical Center

"To Heal as Jesus Healed"

415 Oak Street • Breckenridge, Minnesota 56520 • (218) 643-3000
Provider Number: 240029

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

COMMENTS ON THE HCFA MORTALITY DATA

The data used by HCFA indicated that a total of 62 Medicare patients were admitted to St. Francis Medical Center and died within 30 days of admission. Of these, 49 died while still a patient of the hospital, while 13 died after discharge. Our own records indicate that 860 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals as the total cases reported by HCFA was 529.

Our own records also indicated that of the 13 Medicare patients who died within 30 days of admission, one was still alive at the time of discharge. It is impossible to determine the percentage of the 13 patients who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

Without detailed information concerning the billing data available to HCFA in computing the predicted rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

Results of preliminary Medical Record Review:

Two cass were identified as inaccurately reported by HCFA

Pt.ID No.	Surname	Dx.	Age	Sex	Date of Admission	Date of Discharge	Date of Death	Principal Diagnosis	
[redacted]					3/30/86	4/11/86	4/13/86	540.0	47.0

Though the principal diagnosis is correct for the hospital admission, the patient expired from Diagnostic category CE, and a code of 436.
(This change does not put the death rate outside the predicted mortality rate).

[redacted]				M	6/26/86	7/2/86	7/16/86	844.9	

This was an actual hospital death, the patient was readmitted on 7/10/86 and expired on 7/16/86 in the hospital. Cause of death and diagnosis for admission of 7/10/86 placed the patient in category SE with diagnosis code of 038.9.
(This change does not put the death rate outside the predicted mortality rate).

All categories for St. Francis Medical Center were within the range of predicted mortality rates.

Mark C. McNulty, Pres



St. John's Hospital

540 8th Street West, Browerville, MN 56438 612-594-2204

October 16, 1987

William Roper, M.D.
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper;

We have reviewed the Medicare Mortality Rate information for the year 1986, which was sent to us by HCFA.

Enclosed are our comments which should be included with the public release.

If there are any questions about the enclosed material please feel free to contact us.

Sincerely,

Debra M. Noble
Administrator

DMN/mz



St. John's Hospital

540 8th Street West, Browerville, MN 56438 612-594-2204

Medicare Provider Number: 240033

The total number of Medicare admissions to St. John's Hospital in 1986 was 114, instead of the 73. This would change the mortality rate to 9%, instead of the 19%.

CE (cerebrovascular accident - stroke)

3 of the 4 patients admitted had expired. Of these three, two were over the age of 90. The other was an 85 year old who had been in a nursing home for several years and she was admitted to the hospital after a stroke.

HS (severe acute heart disease)

5 of the 6 patients admitted had expired.
-One case was reviewed by the PRO (Professional Review Organization) and it was agreed the principal diagnosis was metabolic encephalopathy instead of acute MI. This correction was sent to Medicare.
-One of the patients also had chronic lymphocytic leukemia.
-For one of the patients it was the third MI in 10 years.
-One patient had a MI and was discharged to a nursing home, after several weeks she was back in her own home when she suffered another MI and expired.

HealthEast

642 East Seventh Street
St Paul, MN 55106
612-772-5560

October 27, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Attached, please find our comments relative to the HCFA mortality data to be released in December, 1987 for one of the hospitals within the HealthEast system in St. Paul, Minnesota. We are submitting these comments, as requested, for publication with your data.

Respectfully,

Timothy H. Hanson

Timothy H. Hanson
Executive Vice President of Operations

THH/blg

Enclosure

HealthEast

642 East Seventh Street
St Paul MN 55106
612 772 5560

1)ST. JOSEPH'S HOSPITAL PROVIDER NUMBER: 24-00-63

The HCFA mortality data for St. Joseph's Hospital shows 187 cases with a cancer diagnosis and a mortality rate of 43%, which represents 80 deaths. The predicted range of mortality was 19-36%. A review of our records confirms the accuracy of the data. We wish to point out, however, that St.Joseph's has a very active inpatient/outpatient Hospice Unit. In review of the 80 deaths, we found that 68 (85%) were Hospice patients. Taking this into consideration, St. Joseph's falls well within the range of predicted mortality.

St. Joseph's MEDICAL CENTER

Operated by the Sisters of St Benedict

October 26, 1987

Director, Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

RE: HCFA Mortality Report - Review and Comment
Medicare Provider #240075

Dear Sir:

Thank you for the opportunity to review and comment on the mortality report for St. Joseph's Medical Center, Brainerd, Minnesota.

One of the purposes was to identify and correct any errors made in the report. I would like to refer you to four exhibits and I will comment on each:

Exhibit 1 - There are four pages to this exhibit. St. Joseph's Medical Center identified from its records one hundred and fifty-nine (159) deaths which occurred at St. Joseph's Medical Center. There are 26 deaths shown on exhibit 1, pages 1, 2, 3 and 4, that occurred outside of the hospital. We did not verify where these patients died. I have underlined the information on the 26 individuals who did not die at this hospital.

Exhibit 2 - We identified on our computer sheet 14 individuals who died at St. Joseph's Medical Center who did not appear on the HCFA print-out. Exhibit 2 lists the same information for these individuals as is found on the HCFA print-out with the exception of the principal procedure.

Exhibit 3 - This listing of "Patients Whose Deaths Occurred in a Year Subsequent to The Year of Admission" shows one individual who appeared on our computer print-out of deaths in 1986. I have underlined this name and information on this exhibit.

Exhibit 4 - On this exhibit I have documented the various statistical changes necessitated by the variances found in the prior exhibits.

Staff of St. Joseph's Medical Center has studied very carefully the statistical information and were happy to discover that we

523 North 3rd Street • Brainerd, Minnesota 56401 (218) 829-2861
MN 150

did not exceed the expected percentile. We would like you to take note that St. Joseph's Medical Center admitted two thousand two hundred and four (2,204) Medicare patients in 1986. This compares with the analysis which lists one thousand three hundred and fifty-nine (1,359) cases against which the percentages were calculated.

The Quality Assurance Committee will be taking a second look at the category of cases in which the percentage figure was at the top of the percentile rating. This was for the high risk category of cerebral vascular accidents or CE. As a matter of practice, the Quality Assurance Committee reviews all deaths that occur at St. Joseph's Medical Center against criteria and will take a look at this particular group of cases. There are 23 individual charts that will be reviewed a second time.

St. Joseph's Medical Center is a regional referral center for severely and acutely ill individuals in central Minnesota. This causes us to see a higher severity of illness and 78.6% of our deaths occurred in the high risk categories, 7.4% in the low risk categories, and 14% in the other diagnostic groups. It should be noted that the listed categorizations reflect the principal diagnosis, not necessarily the cause of death.

Once again, I would like to thank you for the opportunity to review this prior to publication.

Sincerely,

Sr. Vivian Arts
Senior Vice President

SVA:tad

cc: James E. Koerper, President
Dr. Victor Sofie, Chief of Staff
Dr. James Furda, Chairman, Medical Audit/Quality Assurance Committee
Dr. David Boran, Chairman, Professional Staff Committee

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	20	2	18	
CE -- Cerebrovascular Accidents	23	1	23	
GC -- Gastrointestinal Catastrophes	4		4	
GI -- Gastrointestinal Disease	8	1	6	
GU -- Urologic Disease	2		0	
GY -- Gynecologic Disease				
HL -- Low Risk Heart Disease	6		6	
HM -- Severe Chronic Heart Disease	10		8	
HS -- Severe Acute Heart Disease	32		32	
ME -- Metabolic/Electrolyte Disturbances	7	1	8	
OP -- Orthopedic Disorders	1		0	
PN -- Pulmonary Disease	18	2	20	
RN -- Renal Disease	1		1	
SE -- Sepsis	5		8	
TR -- Severe Trauma	5		3	
OP -- Ophthalmalogic Disease				
UN -- Other Diagnoses	28		22	
Total -- All Categories	170	7	159	

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

St. Luke's
HOSPITAL OF DULUTH

October 22, 1987

William Roper, MD
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore, MD 21207

Provider #24-00-47

Dear Dr. Roper,

We have reviewed the mortality data for Medicare patients treated at St. Luke's Hospital during 1986 and are pleased with the favorable results. Although we feel that your data, by itself, cannot be used by consumers to make healthcare quality judgements, your data, together with the very positive review we recently received from JCAH and our ongoing patient satisfaction surveys, indicate a high quality of health care delivery at St. Luke's.

We are especially pleased that St. Luke's Medicare mortality rates do fall within the range of predicted mortality rates for every diagnostic category, inspite of several factors which tend to misleadingly skew mortality rates upward:

1) The mortality rates only include Medicare patients, who being older, tend to have higher mortality rates than non-Medicare patients. Mortality rates for all patients would be lower.

2) The data does not take into account the severity of a patient's illness. As the regional neurosurgery center and Regional Trauma Center, many of our patients are much more acutely ill than the statistically average patient, upon which your acceptable mortality ranges are based.

3) As a regional referral center, St. Luke's treats many patients transferred from other hospitals in the region because of the specialized services provided at St. Luke's. Patients transferred to St. Luke's from other facilities are generally sicker than patients treated at smaller, rural facilities.

4) As the federally designated EMS Regional Trauma Center, St. Luke's treats the most severly injured trauma patients in the western Lake Superior region. Most of these patients have multiple injuries, for example, abdominal as well as head injuries. This puts these patients at greater mortality risk than the "statistically average" patient used in the mortality study.

5) Hospice Duluth, offered at St. Luke's, provides support for the terminally ill. Every Hospice patient is expected to die within six months to one year. This 100 percent mortality rate is included in the mortality figures and could be misleading to the public.

915 East First Street • Duluth, MN 55805 • 218/726-5555
MN 151

6) Twenty-seven percent of cases included in St. Luke's mortality study died somewhere else after leaving the hospital. The patient's death outside the hospital is often unrelated to the patient's hospital care or even unrelated to the illness they were treated for. Many factors may contribute to death following discharge: social factors, lack of patient compliance to prescribed medical care, lack of interest in personal health, accidents, etc. It may be misleading to the public to attribute a patient's death to a hospital solely because the patient died within 30 days of leaving the hospital. It does not measure quality of care provided by the hospital or by the physician.

7) Cardiac patients who are candidates for surgery are transferred to a regional heart center. Many cardiac patients remaining at St. Luke's are older, sicker, and thus have higher than average mortality rates.

We are pleased that St. Luke's Medicare mortality rates fall within normal ranges for all diagnostic areas. The information you have provided us is a useful internal tool. Until we are able to calibrate into your study the fact that many St Luke's patients are much sicker than a statistically average patient, the study will have little value to consumers making decisions about health care quality. Your study, together with the high rating St. Luke's recently received from JCAH and positive patient satisfaction surveys, indicates that St. Luke's is providing high quality health care.

We believe that better ways for the public to evaluate health care quality are needed and are pleased that the AHA and JCAH are investigating methods to evaluate hospital quality that rely on measures other than mortality rates.

Sincerely,

E. I. Evans, FACHE
President and Administrator
St. Luke's Hospital

ST MARY'S MEDICAL CENTER

407 East Third Street
Duluth, Minnesota 55805
(218) 726-4000

October 26, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

The following commentary relates to the Hospital Mortality Information for Medicare patients treated in this facility in calendar 1986. Data verification has been completed and a detailed listing of identified errors in the HCFA data is attached for correction prior to publication of the data. In summary, the following errors were identified:

In seven (7) cases, the date of death was listed as occurring outside this facility, whereas death occurred inhouse on the date of discharge.

In two (2) cases, the date of death listed as occurring following discharge and outside this facility actually occurred on a subsequent readmission to this facility; therefore, the dates of admission and discharge were incorrect.

In two (2) cases, death was listed as occurring outside this facility; in fact, death did occur following discharge but occurred in this facility's emergency room. This finding may not be in error if expiration in the emergency room is considered a death outside of the hospital.

In two (2) cases, patients could not be identified in this facility's master patient index, indicating that these patients were treated in another facility.

After comparison of our actual mortality rates to the predicted ranges per category, it is our judgment that the data displays St. Mary's Medical Center in a very favorable light. In all but two of the categories, our mortality rate is in the lower predicted range; in the remaining two categories (Metabolic and electrolyte disorders and Sepsis) our actual mortality rate is less than the lowest range in the predicted rate. This is particularly significant because St. Mary's Medical Center is a Regional Heart Center and also provides service to a high volume of patients in the more complex specialties of oncology, pulmonary disease and orthopedics, as well as to numerous very sick patients in several other categories.

I am therefore pleased to submit the attached corrections along with the comments in the preceding paragraph for inclusion in the publication of our hospital mortality rates in December of this year.

Sincerely,

Sister Kathleen Hofer

Sister Kathleen Hofer
President

Attachment: 1

HCFA MEDICARE MORTALITY VERIFICATION - 1986
HOSPITAL ID NUMBER 240002

Patient ID Number (HIC)	Surname (First 6 ltrs)	Diagnostic Category	Age	Sex	HCFA DATA Date of Admission	Date of Discharge	Date of Death	Commentary
[redacted]		CA	056	M	10/23/86	10/29/86	11/21/86	Patient was readmitted to this hospital on 11/18/86 and expired inhouse on 11/21/86. HCFA data excludes the final admission of 11/18/86.
[redacted]		CE	068	M	01/14/86	01/15/86	01/16/86	Patient expired inhouse on date of discharge (01/15/86)
[redacted]		CE	067	M	06/14/86	06/15/86	06/16/86	Patient expired inhouse on date of discharge (06/15/86)
[redacted]		GC	088	F	02/06/86	02/15/86	02/17/86	Patient expired inhouse on date of discharge (02/15/86)
[redacted]		HS	073	M	12/07/86	12/12/86	12/13/86	Patient expired inhouse on date of discharge (12/12/86)
[redacted]		UN	073	F	05/04/86	05/04/86	05/05/86	Patient expired inhouse on date of discharge (05/04/86)
[redacted]		UN	073	F	07/08/86	08/19/86	08/20/86	Patient expired inhouse on date of discharge (08/19/86)
[redacted]		UN	078	F	12/06/86	12/11/86	12/14/86	Dates of admission, discharge, and death are correct;patient died in this provider's emergency room
[redacted]		UN	071	F	04/07/86	04/14/86	04/30/86	Patient expired inhouse on date of discharge (04/14/86)
[redacted]		UN	074	M	07/05/86	07/09/86	07/23/86	Dates of admission, discharge, and death are correct; patient died in this provider's emergency room

M
N 152.2

HCFA MEDICARE MORTALITY VERIFICATION - 1986
HOSPITAL ID NUMBER 240002

Patient ID Number (HIC)	Surname (First 6 ltrs)	Diagnostic Category	Age	Sex	Date of Admission	Date of Discharge	Date of Death	Commentary
[redacted]		HL	069	M	12/09/86	12/13/86	01/07/87	Patient was readmitted to this hospital on 12/28/86 and expired inhouse on 01/07/87. HCFA data excludes admission of 12/28/86
Patients not identified in provider's master patient index								
[redacted]		SE	086	M	09/22/86	09/22/86	09/30/86	Not identified in this provider's system
[redacted]		UN	060	F	03/03/86	03/07/86	03/17/86	Not identified in this provider's system

MN 152.3



Saint [illegible]
Hospital

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore, MD 21207

Dear Doctor Roper: RE: Medicare Provider #24-0010

The following are our comments regarding HCFA's release of hospital-specific mortality data.

While we welcome HCFA's effort to assess institutional quality of care, this particular mortality-based method requires further validation before it can be considered useful. The potential for misunderstanding these data, both by consumers and professionals, is far too great, and we caution anyone against using them as an index of quality. We do support the concept of developing objective measures of assessing quality care -- in fact, we are evaluating several methods in our hospitals -- but believe that reliable measures are still years away. We welcome the opportunity to contribute to progress toward this goal.

Sincerely,

David A. Leonard

David A. Leonard
Administrator

DAL/gn

ST MARY'S
HOSPITAL & HOME
The New HEALTHONE

551 Fourth Street North
P.O. Box 750
Winsted, MN 55395-0750
612 485-2151

Medicare Provider Number: 240074

Review of St. Mary's Hospital & Home mortality data from HCFA reveals that all St. Mary's deaths fell within the predicted mortality rates for that diagnostic category. In fact, in several of the categories, no deaths occurred.

We believe our mortality rates to be extremely low, considering the following analysis of the HCFA mortality data as submitted to us.

1. Patients of an advanced age have more complications and would be expected to have a higher mortality rate.

   All the deceased were over 65. The average age was 83. Four were over 90 years of age.

2. Patients in HCFA's "high-risk" categories would be expected to have a higher mortality rate.

   After deleting patients in HCFA's "UNIDENTIFIED" classification, 84% were in HCFA's high-risk category. Even the "low-risk" patients had a variety of diseases or conditions attendant to advanced age.

3. Patients admitted from a nursing home would be expected to have a variety of complicating conditions and to be in poor health.

   68% were admitted directly from a nursing home and another 6% were admitted on a transfer from another hospital. Only 26% came from their own homes to the hospital; and, of these, 38% entered St. Mary's through our Emergency Department.

4. Patients discharged to another healthcare facility would be expected to be sicker than those returning home.

   36% died after discharge and 100% of those died in another hospital or nursing home.

Jeanne Johnson

Prepared by: Jeanne Johnson
10/25/87

Working together for a healthier you

ST MARY'S
HOSPITAL & HOME
The New HEALTHONE

551 Fourth Street North
P.O. Box 750
Winsted, MN 55395-0750
612 485-2151

Medicare Provider Number: 240074

Review of St. Mary's Hospital & Home mortality data from HCFA reveals that all St. Mary's deaths fell within the predicted mortality rates for that diagnostic category. In fact, in several of the categories, no deaths occurred.

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   36% died after discharge and 100% of those died in another hospital or nursing home.

Jeanne Johnson

Prepared by: Jeanne Johnson
10/25/87

St. Paul·Ramsey Medical Center

Jackson at University
St. Paul, Minnesota 55101-2595
(612) 221-2191

Executive Offices

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Administrator:

Enclosed are our comments on the HCFA mortality data. Thank you very much for the opportunity to review the data prior to the publishing of this data.

If you have any questions, please feel free to contact me at (612) 221-2188.

Sincerely,

Rebecca J. Enos
Vice President

RJE/lh
00401

Enclosures

St. Paul·Ramsey Medical Center

Jackson at University
St. Paul, Minnesota 55101-2595
(612) 221-2191

Executive Offices

October 26, 1987

St. Paul-Ramsey Medical Center's Medicare Provider #240106.

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

ST. PAUL-RAMSEY MEDICAL CENTER'S COMMENTS
ON THE HCFA MORTALITY DATA

Marlene E. Marschall
President
St. Paul-Ramsey Medical Center
640 Jackson Street
St. Paul, Minnesota 55101
Phone: (612) 221-2191

ST. PAUL-RAMSEY MEDICAL CENTER'S COMMENTS
ON THE HCFA MORTALITY DATA

Data Verification

The data used by HCFA indicate that in 1986 249 Medicare patients admitted to St. Paul-Ramsey Medical Center died within 30 days of admission. Of these, 179 died while still a patient at the hospital and 70 died after discharge. Our records indicate that, of the 249 deaths reported by Medicare, 1 patient is alive, 181 died while still in the hospital and 67 died after discharge. (Please see the attached corrections by diagnostic category.) Also, the HCFA data report a total of 2,005 cases. According to our records, St. Paul-Ramsey Medical Center had 3,512 Medicare admissions in 1986. Presumably the discrepancy reflects multiple admissions of individuals to different hospitals. We have no way to verify whether the number of Medicare patients treated at St. Paul-Ramsey Medical Center is correct. Also, we cannot verify the number of patients who died after discharge because that information is not included in the patient's medical record. Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the HCFA analysis.

Interpretive Remarks

In only one diagnostic category, severe acute heart disease, does the mortality rate fall outside the predicted range. Several factors may account for this. St. Paul-Ramsey Medical Center provides unique services that potentially could result in higher than average mortality rates. (1) St. Paul-Ramsey Medical Center is the major tertiary medical center in the east metropolitan area of the Twin Cities and draws referrals of critically ill and trauma cases from northern and eastern Minnesota and western Wisconsin. As a result, St. Paul-Ramsey Medical Center receives a higher number of paramedic ambulance runs than any other hospital in the east metro area. In 1985 Ramsey received more cardiopulmonary runs than any other east metropolitan hospital (SPRMC, 29.4%; next highest hospital, 15.8%). We also received three times as many critical cardiopulmonary patients and twice as many severe cardiopulmonary patients by paramedic ambulance runs than any other east metro hospital. (2) This hospital has a very large geriatric program which provides services to many patients in nursing homes in this area. (3) We are the regional burn center for Minnesota and surrounding states.

Results of Prelminary Medical Record Review

The chart of each patient listed as having died in the severe acute heart disease and the cerebral accident categories were reviewed by the quality assurance physicians as well as specialists in cardiology and neurology. There were no quality of care concerns detected.

The following factors contributed to the "higher than expected" mortality rate for severe acute heart disease. (1) St. Paul-Ramsey Medical Center is the regional center for acute cardiac care, and, therefore, receives critically ill, medically unstable patients from the east metro and western Wisconsin areas. The HCFA methodology does not adjust for the severity of illness, and, therefore, underestimates the expected mortality rate for our hospital. (2) Unstable patients are often directly admitted to the Coronary Care Unit rather than evaluated and treated in the Emergency Room. Thus, patients who would normally die in the Emergency Room are admitted and if they die, are included in St. Paul-Ramsey Medical Center's mortality data. Of the in hospital deaths, 8 were transferred from other hospitals, and 15 were cared for at other hospitals prior to the episode which resulted in death at St. Paul-Ramsey Medical Center.

St. Paul-Ramsey Medical Center also receives medically unstable cerebrovascular accident patients via the paramedic ambulance runs and transfers from other hospitals. This may account for a mortality rate in the cerebrovascular accident category that is in the high end of the range. The 19 patients who died here of stroke were severely ill. All of them had determined with their physician and family members not to resuscitate should they suffer cardiopulmonary arrest.

Conclusions

Great care must be taken in interpreting the HCFA mortality data. The methodology does not adjust these rates for severity of illness or unique services offered by a particular hospital.

	DEATHS HCFA		DEATHS SPE	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA	3	4	3	4
CE	15	4	15	4
GC	11	1	11	1
GI	9	2	9	2
GU	2	3	2	3
GY	0	0	0	0
HL	8	3	8	3
HM	15	5	15	5
HS	36	5	39 (1)	2 (1)
ME	2	8	2	8
OP	1	0	1	0
PN	30	9	29 (2)	9
RN	1	0	1	0
SE	9	0	9	0
TR	6	4	6	4
OP	1	0	1	0
UN	25	22	25	22
TOTAL	179	70	181	67

1. SPRMC records show that three patients HCFA listed as dying after discharge actually died in the hospital.

2. One patient HCFA reported as dead was discharged alive and continues to be followed in our clinic.

Community Hospital And Health Care Center

618 West Broadway St. Peter, Minnesota 56082 Phone 931-2200

October 21, 1987

Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

DATA VERIFICATION
St. Peter Community Hospital,
St. Peter, MN 45082

Dear HCFA,

Please refer to the attached list of deaths attributed to our facility, noting the three patients identified in green. According to our records, these patients were transferred to other acute facilities, and, therefore I feel their deaths should not be included on our list.

[redacted] was transferred to Immanuel-St. Joseph's Hospital in Mankato, MN

[redacted] were both transferred to the VA hospital in Minneapolis, MN.

Thank you for your consideration of this matter and readjustment of the corresponding rates.

Sincerely,

Paulette Redman, RRA

Paulette Redman, RRA
Director, Medical Records

Community Hospital And Health Care Center

618 West Broadway St. Peter, Minnesota 56082 Phone 931-2200

COMMENTS ON HCFA MORTALITY DATA
St. Peter Community Hospital, St. Peter, Minnesota MC Provider #240023

Data Verification

The data used by HCFA indicate that a total of 46 Medicare patients admitted to St. Peter Community Hospital died within 30 days of admission. Of these, 31 died while still a patient of the hospital, while 15 died after discharge. Our own records show that 418 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether the number of Medicare patients treated at St. Peter Community Hospital is correct. Our records also indicate that three Medicare patients who died within 30 days of admission to our facility were actually transferred to another acute hospital, and were still alive at the time they were discharged from this hospital.

In only one of the diagnostic categories (severe acute heart disease), the hospital's actual mortality rate falls outside of the range of the predicted mortality rate, and this by only one percentage point. Following review of the death cases in this category, it was determined that a full 60% of them were felt to be terminally ill at the time of their admission. Additionally, 60% were in the hospital less than 24 hours prior to death. The patients themselves averaged almost 79 years of age, and 60% of them had identified histories of heart problems, while 20% were also terminally ill with cancer. There were 20% of these patients who were residents of skilled nursing facilities prior to their admission to the hospital.

David Larson
Administrator

Paulette Redman, RRA
Director, Medical Records

HCFA MORTALITY DATA

Trinity Hospital
Baudette, MN

Data Verification

The HCFA data indicate that a total of 107 Medicare patients admitted to this hospital died within 30 days of admission. Nine of these patients died while in the hospital and five died after discharge. Our records indicate that 212 Medicare admissions occurred in 1986. This discrepancy is most likely due to multiple admissions of individual beneficiaries.

The data reported by HCFA is, with the exception of several minor errors in hospital insurance numbers, correct. Corrections to these errors are attached.

Interpretive Remarks

All cases fall within the range of predicted mortality for the particular diagnostic category with the exception of two cases, each in a diagnostic category by itself which results in a 100% mortality rate for each category. This small data base makes this data invalid.

The deaths listed have been categorized into diagnostic categories based upon the principal diagnosis from the patient's last admission; however, actual cause of death in 43% of these cases place them in different diagnostic categories than indicated on the HCFA report.

Severity of individual patient's condition on admission to the hospital is not considered in the HCFA statistics. Patients with terminal illnesses, such as cancer, are often kept in their homes until the family is unable to adequately care for their needs, at which time they are admitted to the hospital. Nursing home patients represent 64% of the patients indicated in the HCFA data. These individuals also are often not admitted until their conditions require the acute hospital setting. Five of these nursing home residents were discharged prior to their deaths.

Our quality assurance program incorporates standards from each hospital department as a measure of quality of care. Monthly data is collected and monitored for trending and and studied as a whole to provide us with a measurement of quality of services provided. Death review is a part of our quality assurance activities. All inhouse deaths are reviewed on a monthly basis at Medical Staff and Quality Assurance meetings. The listed deaths were reviewed and deemed unavoidable.

TWEETEN/LUTHERAN

HEALTH CARE CENTER

October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

I am writing to you in response to receipt of the data sheets on mortality rates in the hospital division of our facility. After reviewing this data, I would like to offer the following comments.

As can be seen, we had very few hospital admissions during the year 1986. This was due to the local physician resigning mid-year. You have listed the total number of Medicare admissions to be seven (7) -- our records indicate nine (9) admissions. None of the admissions were readmissions. These numbers would then reflect an 11% overall mortality rate rather than 14%.

Because of the relatively low number of admissions, I am uncomfortable with using this data, solely, as a measure of quality care. We have developed quite an involved quality assurance program that is operational in all departments. This type of program, I feel, deals with more comprehensive quality of care issues than mortality rates.

Tweeten/Lutheran is a non-profit entity with 10 acute care beds, and 79 long term care beds. Because of this, our admissions to the hospital tend to be more elderly, typically with more medical involvement. They are frequently from our Skilled Nursing Facility beds, and subsequently are discharged back to these beds.

The hospital, within the last year, has affiliated with Lutheran Health Systems of LaCrosse, Wisconsin. This has enabled the facility to have better access to state-of-the-art technology, while retaining the small town atmosphere. We feel we offer excellent care based on sound medical practice, a good referral base to nearby tertiary care institutions, and a long history of commitment to the Spring Grove area.

125 Fifth Avenue SE Spring Grove Minnesota 55974 Telephone (507) 498-3211
An Affiliate of Lutheran Health System - La Crosse

I appreciate the opportunity to review this data prior to publication, and look forward to any other correspondence you may have on these matters.

Sincerely,

TWEETEN/LUTHERAN HEALTH CARE CENTER

Robert J. Schmidt
Administrator

RJS:dr

United District Hospital & Home
Caring for you. Caring about you.

October 23, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD. 21207

To Whom It May Concern:

Attached is a copy of the mortality listing of medicare patients treated in our facility in 1986 as shown on the printout received September 28, 1987. We have reviewed the printout and make the following official comments.

The United District Hospital & Home mortality rate of each diagnostic category was within or below the range of predicted mortality rates.

The final diagnosis does not always reflect the actual cause of death. With the existing DRG reimbursement system, the hospital is required to record the principal diagnosis to determine reimbursement which frequently is not the cause of death. Since you are utilizing the principal diagnosis in the report, please note where we have identified where the cause of death differs from the principal diagnosis. In review of the data received, it is noted none of the deaths were preventable and all the deaths were included under the High Risk category.

[redacted] is the same person and has been listed twice. Please delete from the report.

One death was missed and is highlighted in yellow. Please add the death to the mortality listing.

Of the twenty-three deaths:

- Nine deaths were admissions from a long term care facility.
- Seven deaths were admitted through our Emergency Room.
- Four deaths were the result of terminal carcinoma.
- Three deaths were caused by severe cerebral thrombosis.
- Two of the deaths expired in our emergency room.
- Twenty of these deaths had Do Not Resuscitate orders on their charts.

401 Prairie Avenue North
Staples, Minnesota 56479
(218) 894-1515

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Thank you for the opportunity to comment. We request that our comments be included in the final draft of the mortality report which will be published.

Sincerely,

Tim Rice

Tim Rice
Adminstrator

UNITED
HOSPITAL
DISTRICT

P.O. Box 160
515 South Moore Street
Blue Earth, Mn 56013
(507) 526-3273

October 23, 1987

William Roper, M.D.
Administrator
Health Care Financing Administration
Washington, D.C. 20201

Ref: Medicare Provider #240162

Dear Dr. Roper:

Thank you for the opportunity to respond to the planned release of mortality data concerning patients within the Medicare program for 1986. We are aware that the data being published is intended to include all Medicare patients who expired during a hospital stay at or within thirty (30) days of discharge from our institution.

It is our understanding that the mortality data attributed to our hospital should not include patients who were transferred to another health care facility. In verifying the data forwarded to me, we find that twelve (12) of the forty-five (45) discharges included in our data were patients who had been transferred to another health care facility. Based on the information forwarded re: data release criteria, we feel that these specific cases should be removed from our mortality list.

It is our premise that this type of statistical reporting may be useful to raise questions within an institution re: quality assurance aspects of patient care; however, we do not feel that this type of reporting provides any qualified indication of the quality of care provided within a health care institution. For example:

a. it is commonly recognized that elderly people will demonstrate increased utilization of health care services in the last months of life. At least twenty-four (24) of the forty-five (45) patients included in our mortality data had at least one, if not several, previous admissions within the year. The average age of the patient included in the mortality data list was eighty-two years of age.

b. It is also generally recognized that a higher mortality rate is expected among patients admitted through the Emergency Department. Twenty-nine (29) of the forty-five (45) admissions previously listed were emergency department admissions.

c. Swing Bed admissions accounted for ten (10) of the patients listed within the forty-five (45) included in the mortality data list. Swing Bed care is intended for the patient with a chronic condition and cannot be included in comparisons of data involving patients receiving acute care services.

d. The mortality data includes a listing of deaths specific to our facility along with expected ranges of deaths based upon certain selected patient characteristics, demographic characteristics, etc. Factors which must be included to create these ranges render the statistical inference to be meaningless. For example, the diagnosis category of gynecologic disease provides a range of predicted mortality from 0%-99%. Individuals reading this data would infer that patients with gynecologic disease have a 1% chance of recovery. The reliability of this type of reporting can only be highly questionable and certainly cannot be provided to the public as an inference of quality of care provided within an institution.

The question of statistical validity also occurs in situations of limited numbers of cases. If few cases are identified within a particular diagnostic category, the resulting report will indicate an artificially high mortality rate due to the low number of units included within the sample. It is reasonable to expect that most rural facilities will demonstrate this phenomenon due to the limited numbers of admissions in comparison to larger urban facilities and due to the fact that, in many cases, terminally ill patients are returned to the local facility for care as they will be closer to family and friends.

In conclusion, we wish to emphasize that in no circumstances should any inference be made, stated or unstated, that this data provides a valid means of measurement of the quality of care provided within a health care facility.

Sincerely,

Mary Uppena, RRA
Director of Medical Records and
Quality Assurance Coordinator

Frank Lawatsch
Administrator
United Hospital District

UNITED HOSPITAL
ST. PAUL, MINNESOTA
COMMENTS ON HCFA MORTALITY DATA
MEDICARE PROVIDER # 24-0038

United Hospital

United Hospital's overall mortality rate falls well within HCFA's range of predicted mortality rates. Mortality rates as presented by HCFA are not, in themselves, measures of hospital performance and should only be used as screens to identify questions for further review. Quality judgements can only be made after physician peer reviews of the information contained in the medical record.

United Hospital, a regional referral center, has an effective Quality Assurance Program which includes ongoing monitoring of Severity of Illness using the MedisGroups System and includes strong physician peer review processes. The Quality Assurance Program allows United Hospital to continually analyze quality of care including the type of questions that HCFA attempts to identify through their mortality data.

United Hospital's Quality Assurance Program provides a mechanism to review mortality rates and determine whether deaths were expected based upon the severity of patient illness. HCFA data indicate that United has one area, severe chronic heart disease, in which mortality is higher than the HCFA expected mortality range by 1%. United Hospital's internal analysis indicates that the mortality rate in this category falls within the expected mortality range when adjusted for severity within the MedisGroups System. Patients with higher severity have an expected or a higher probability of mortality.

United Hospital has a large number of high severity of illness patients seeking treatment through its heart program. Cardiac patients are referred to United because of the availability of advanced technology and medical specialists.

While the data appear essentially correct, a review raises several concerns. United has no way of verifying whether the number of Medicare patients treated at United is correct since HCFA did not provide a listing of all cases included in the analysis. It is also impossible to verify the accuracy of HCFA's data listing the number of patients who died subsequent to discharge since information concerning death after discharge is not included in the patient's medical record. Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

333 N. Smith Ave.
St. Paul, MN 55102
(612) 298-8888

UNIVERSITY OF MINNESOTA
TWIN CITIES

The University of Minnesota Hospital and Clinic
Harvard Street at East River Road
Minneapolis, Minnesota 55455

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Services
Washington, DC 20201

Dear Dr. Roper:

Thank you for providing the opportunity to review this hospital's 1986 mortality data for Medicare patients prior to publication. With the exception of the three errors noted on Attachment A, the deaths identified and the data elements for each are accurate.

This hospital's actual mortality rate exceeded the predicted range in only one category. Specifically, the category is Pulmonary Diseases where the predicted range was estimated at 8-31% and our rate was 34% or 15 deaths of 44 patients. A detailed review of each of these deaths revealed that:

- Six deaths were of cancer patients who had widespread progressive disease and who were admitted for treatment of end-stage conditions including pneumonia or pleural effusion.

- One death was of an end-stage AIDS patient who was admitted for pneumonia.

- Two of the patients who expired had severe cardiac conditions; one patient with embolism of the pulmonary artery and subendocardial infarction expired within ten hours of transfer from another hospital; the other was a 41 year old high-risk patient with severe cardiomyopathy and pulmonary hypertension who was referred to this hospital for evaluation for a heart-lung transplant.

- Five of the six remaining patients had chronic progressive pulmonary conditions including severe chronic obstructive pulmonary disease, asthma, pulmonary fibrosis, and systemic sclerosis with lung involvement.

- The only patient who presented to this hospital with an acute event was a 77 year old patient who was hypotensive and hypoxic on admission and who expired of multiple organ failure within two days of admission.

These findings illustrate a methodological concern that we have with this data release. That is, the predictive model utilized does not account for each patient's general health status nor the stage or severity of illness. We encourage HCFA to pursue ways to add these factors to its prediction formulas.

We concur with the logic supporting the decision to include all deaths within 30 days of admission including those which occurred post-discharge. Hospitals should be concerned about and attempt to review the cause of deaths occurring within a brief period after discharge. However, inclusion of post-discharge deaths also may erroneously inflate hospitals' mortality rates due to deaths from accident or other causes totally unrelated to the hospitalizations or quality of care rendered. The size and extent of such error should be thoroughly researched.

It would be useful to the provider community if HCFA would provide more information regarding the methodology used to calculate the predicted mortality ranges. An improved understanding of the statistical measures applied would help facilitate individual institutional analysis and review with physicians.

We agree with the statement in paragraph 1, page 3 of your September 21 cover letter that the data cannot be used "... by itself to make judgments about the quality of care in an individual hospital..." Therefore, we believe that in the public release of the data, HCFA should make clear that the information is **not a measure** of quality rather than stating that it is not a **complete** measure.

Sincerely yours,

Robert Dickler
General Director

WACONIA RIDGEVIEW HOSPITAL

500 SOUTH MAPLE STREET • WACONIA, MINNESOTA 55387 • 612/442-2191 METRO 446-1200

October 27, 1987
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE HOSPITAL PROVIDER 240056

Gentlemen:

This is in response to your mortality information about all short term acute care hospitals which treated Medicare patients in 1986, dated September 21, 1987.

In regards to patient:

[redacted], Discharge of 2-12-86.

Your information indicates the principal diagnosis is 36089.
It should be 56089. I have included a copy of the UB82 form which shows the diagnosis of 56089.

Sincerely,

John P. Devins
Executive Director

Watonwan Memorial Hospital

DONALD L. JOHNSON
ADMINISTRATOR

1207 6TH AVENUE SOUTH
St. James, Minnesota 56081

PHONE
(507) 375-3261

October 23, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
Box 25584
Baltimore, Maryland 21207

RE: Mortality Data
Watonwan Memorial Hospital
St James, Minnesota 56081
ID # 24-0157

Dear Sirs:

Upon review of the data supply by HCFA dated September 21, 1987, our hospital wishes to make the following comments:

Of the twenty nine patients listed, it must be noted that five patients did not die at the hospital as indicated. This group includes:



Secondly, of the twenty nine patients listed in the report, nine patients were admitted to the hospital from area nursing homes. It is a well known fact that patients admitted from nursing home will have a higher mortality rate.

Thirdly, of the twenty nine patients listed, nine patients admitted to the hospital were diagnosed as being in the last stages of their life, given their condition.

Fourth, of the twenty nine patients listed, nine patients died in the hospital's SNF unit which should be viewed as an admission from a nursing home.

When dealing with statistics, it must be pointed out that numbers will severely effect the percentages (i.e. renal disease in this report with only two cases).

We believe that given these concerns over the data contained in the report, HCFA should recalculate the percentages, etc. and re-issue a revised report prior to publication.

Finally, we appreciate the opportunity to respond to the report.

Sincerely,

WATONWAN MEMORIAL HOSPITAL

Donald L. Johnson, Adm

Donald L. Johnson, Administrator

DLJ:ajs

Wheaton Community Hospital
Wheaton, Minnesota

Provider Number: 24-0112

The hospital's comments consisted primarily of annotations to the patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish the comments because of the numerous patient identifiers contained in the data.

Windom Area Hospital

P. O. Box 339 Highways 60 & 71 N. Windom, Minnesota 56101
Phone 831-2400

November 6, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

From: Windom Area Hospital
No. Hwy 60 & 71
Windom, MN 56101
Provider #240171

Re: Hospital Mortality Data

Of the nineteen patients listed to our hospital, three did not die in this facility. There is one incorrect discharge date. Patient I.D. number [redacted] was discharged on the day she died which was 2-1-86.

Mississippi

MS-1

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ABERDEEN MONROE CO HOSP ABERDEEN MS 39730	MS-11 *	384	20	8-16	14	79	19-68	17	53	14-57	4	50	2-75	17	24	8-46	5	60	9-78	8	63	3-57	53	30	10-32
AMI GARDEN PARK COMMUNITY GULFPORT MS 39501	MS-12	727	11	7-15	56	25	17-43	15	27	10-53	15	13	2-40	36	33	14-42	11	55	17-70	14	29	8-53	42	29	12-38
BALDWYN SATELLITE HOSP BALDWYN MS 38824	MS-13	368	12	9-18	11	64	10-61	22	27	14-51	7	0	3-60	18	39	12-52	8	63	15-75	25	20	6-40	32	6	8-36
BAPTIST MEMORIAL HOSP BOON BOONEVILLE MS 38829	MS-14	616	11	8-16	25	44	19-56	21	38	15-53	10	20	3-52	31	23	10-39	20	35	16-56	25	16	5-38	89	19	12-30
BEACHAM MEMORIAL HOSP-MAGNOLIA MS 39652	MS-15 *	346	9	8-18	7	43	9-71	20	35	17-57	8	0	2-55	20	25	10-47	20	25	21-62	3	0	0-89	38	13	10-36
BILOXI REGIONAL MEDICAL CE BILOXI MS 39530	MS-16 *	913	13	8-15	53	49	21-48	30	47	14-46	26	27	7-38	51	25	13-36	36	42	23-55	17	12	5-45	79	11	9-28
BOLIVAR CO HOSP CLEVELAND MS 38732	MS-17 *	1069	14	10-17	49	47	21-49	43	28	17-44	25	20	6-38	61	16	14-35	31	39	23-58	33	24	8-37	133	19	14-31
CHOCTAW CO HOSP ACKERMAN MS 39735	MS-18 *	220	12	8-18	4	100	17-92	9	44	7-61	5	20	1-68	17	12	10-51	4	75	8-83	14	7	3-45	31	16	6-34
CHOCTAW HEALTH CENTER PHILADELPHIA MS 39350	MS-19 *	16	6	1-36	.	.		.	.		.	.		1	0	0-98	.	.		1	0	0-97	2	0	0-90
CLAIBORNE CO HOSP PORT GIBSON MS 39150	MS-20 *	112	11	6-19	1	100	0-97	4	25	3-75	3	67	0-83	7	14	4-61	.	.		4	0	0-76	13	23	8-54
CLAY CO MEDICAL CENTER WEST POINT MS 39773	MS-21 *	509	10	9-18	25	32	13-48	23	9	14-50	8	13	2-55	36	25	11-39	41	32	24-54	21	33	10-48	46	20	8-31
COLUMBUS HOSP INC COLUMBUS MS 39701	MS-22 *	723	9	6-14	34	26	13-45	19	32	13-52	20	10	3-36	25	24	9-42	18	39	18-60	10	20	2-51	58	12	9-30
COMMUNITY HOSP OF CALHOUN PITTSBORO MS 38951	MS-23 *	147	5	6-18	3	67	7-88	1	0	2-98	1	0	0-98	8	0	3-57	2	100	7-95	2	0	1-89	28	7	5-33
COVINGTON CO HOSP COLLINS MS 39428	MS-24 *	345	12	7-16	6	67	4-67	10	30	12-65	.	.		21	19	11-48	12	33	17-69	10	30	3-53	48	15	9-32
DELTA MEDICAL CTR GREENVILLE MS 38704	MS-25	1059	15	9-17	92	26	18-39	64	47	17-40	30	17	7-37	47	21	13-38	27	44	24-60	12	17	4-50	68	22	13-35
DISTRICT 2 COMMUNITY HOSP DURANT MS 39063	MS-26 *	172	12	8-20	5	80	8-77	6	33	7-72	4	25	1-74	9	22	10-65	3	33	7-88	10	10	6-58	16	13	11-53
DOCTORS HOSPITAL OF JACKSO JACKSON MS 39216	MS-27	392	9	6-15	17	24	7-47	8	0	6-62	6	0	1-63	18	17	8-46	5	40	11-81	12	25	8-56	59	15	9-31
ELLISVILLE MUNICIPAL HOSP ELLISVILLE MS 39437	MS-28 *	68	7	6-23	2	100	10-98	.	.		.	.		5	40	4-72	1	100	2-98	1	0	3-99	14	0	3-43
F G RILEY MEMORIAL HOSP MERIDIAN MS 39301	MS-29 *	1686	11	8-15	105	24	17-37	47	32	17-43	30	13	10-41	35	34	13-41	52	52	26-53	21	38	5-41	187	16	14-28
FIELD MEMORIAL HOSP-CENTREVILLE MS 39631	MS-30 *	442	15	9-18	15	33	12-57	20	30	13-51	9	44	4-55	24	21	10-44	11	36	15-67	22	5	3-36	72	29	14-35
FORREST GENERAL HOSP HATTIESBURG MS 39401	MS-31 *	3061	11	8-14	210	29	20-36	100	34	19-37	46	17	7-31	122	25	16-32	94	43	26-47	37	27	7-34	216	24	14-27
FRANKLIN CO MEMORIAL HOSP-MEADVILLE MS 39653	MS-32 *	223	13	9-20	8	75	12-71	10	20	10-62	6	0	1-63	18	22	10-49	18	39	21-64	4	25	2-75	16	19	7-47
GEORGE COUNTY MOBILE INFIR LUCEDALE MS 39452	MS-33 *	308	12	9-19	10	50	15-70	8	25	6-63	3	0	1-81	17	12	11-52	18	33	18-61	4	25	1-75	35	20	9-36
GILMORE MEMORIAL HOSP-AMORY MS 38821	MS-34 *	666	12	8-16	27	37	12-46	12	42	9-57	8	25	3-58	42	29	13-39	25	52	24-61	18	6	4-41	79	19	11-30
GOLDEN TRIANGLE REGIONAL M COLUMBUS MS 39701	MS-35 *	1382	10	8-14	108	26	19-39	45	36	15-42	31	23	10-40	48	21	12-37	32	38	23-56	25	20	5-37	104	19	13-30
GREENE CO HOSP LEAKESVILLE MS 39451	MS-36 *	92	12	7-22	1	100	1-97		.		.	.		6	0	3-64	1	0	0-97	7	14	3-62	23	22	8-41

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ABERDEEN MONROE CO HOSP ABERDEEN MS 39730	3	33	4-86	2	0	2-90	1	0	0-100	.	.		37	5	1-20	15	0	2-39	1	0	0-100	33	12	1-20	24	8	0-31
AMI GARDEN PARK COMMUNITY GULFPORT MS 39501	8	25	7-67	10	30	17-73	13	8	1-40	16	0	0-92	71	1	1-13	43	0	1-19	2	0	0-100	40	0	1-18	74	1	0-10
BALDWYN SATELLITE HOSP BALDWYN MS 38824	2	0	2-90	1	100	1-97	2	0	0-89	1	0	0-100	25	4	0-24	6	0	0-66	1	0	0-100	28	4	1-23	16	0	0-76
BAPTIST MEMORIAL HOSP BOON BOONEVILLE MS 38829	6	0	2-67	3	33	3-83	3	0	0-88	.	.		89	2	2-13	9	11	1-50	2	0	0-100	77	0	1-12	25	0	0-25
BEACHAM MEMORIAL HOSP- MAGNOLIA MS 39652	5	0	1-71	.	.		.	.		.	.		57	2	2-16	11	9	0-47	.	.		44	0	1-17	12	0	0-47
BILOXI REGIONAL MEDICAL CE BILOXI MS 39530	6	0	4-69	6	33	5-69	14	0	1-38	8	0	0-99	100	5	2-12	38	3	1-20	5	0	0-100	77	5	1-12	60	2	0-12
BOLIVAR CO HOSP CLEVELAND MS 38732	21	33	7-48	14	50	16-65	23	13	2-30	5	0	0-100	146	7	2-11	47	15	3-21	9	0	0-100	81	4	2-13	37	0	0-18
CHOCTAW CO HOSP ACKERMAN MS 39735	.	.		.	.		1	0	0-100	.	.		22	5	0-27	11	0	0-45	1	0	0-100	10	20	0-48	9	0	0-82
CHOCTAW HEALTH CENTER PHILADELPHIA MS 39350	1	0	0-99	.	.		.	.		.	.		1	100	0-97	1	0	0-100	.	.		1	0	0-100	1	0	0-100
CLAIBORNE CO HOSP PORT GIBSON MS 39150	6	17	5-70	.	.		.	.		.	.		15	0	0-36	1	0	0-97	.	.		6	17	1-62	4	0	0-99
CLAY CO MEDICAL CENTER WEST POINT MS 39773	5	0	2-71	1	0	0-97	17	6	1-34	.	.		61	0	1-14	14	0	1-38	3	0	0-100	51	2	1-16	30	0	0-21
COLUMBUS HOSP INC COLUMBUS MS 39701	12	25	6-56	7	43	13-76	22	9	3-33	4	0	0-100	79	1	1-12	33	6	1-22	9	0	0-100	31	6	1-21	33	3	0-21
COMMUNITY HOSP OF CALHOUN PITTSBORO MS 38951	2	50	2-91	4	0	5-79	2	0	0-98	.	.		16	0	1-34	7	0	0-58	.	.		13	0	0-41	7	0	0-98
COVINGTON CO HOSP COLLINS MS 39428	5	0	3-72	4	100	11-86	.	.		.	.		44	9	1-17	14	7	1-38	3	0	0-100	52	6	1-15	12	0	0-71
DELTA MEDICAL CTR GREENVILLE MS 38704	24	42	10-50	10	70	16-71	31	16	2-26	9	0	0-100	92	7	3-14	107	3	1-12	8	0	0-92	64	8	2-14	59	3	0-13
DISTRICT 2 COMMUNITY HOSP DURANT MS 39063	1	0	3-99	.	.		4	0	0-80	.	.		11	9	1-44	8	13	1-53	2	0	0-100	16	13	0-34	12	0	0-60
DOCTORS HOSPITAL OF JACKSO JACKSON MS 39216	6	17	5-71	2	50	2-90	2	0	0-97	24	0	0-79	37	3	1-20	20	0	1-30	3	0	0-100	17	18	1-32	30	0	0-27
ELLISVILLE MUNICIPAL HOSP ELLISVILLE MS 39437	1	0	1-98	.	.		.	.		.	.		8	0	0-54	5	0	0-69	.	.		3	0	0-92	1	0	0-100
F G RILEY MEMORIAL HOSP MERIDIAN MS 39301	11	27	7-60	18	33	18-62	29	10	3-28	10	0	0-83	224	5	3-10	73	5	1-15	5	0	0-91	131	4	2-10	111	0	0-7
FIELD MEMORIAL HOSP- CENTREVILLE MS 39631	7	57	9-72	4	75	8-83	6	17	0-64	1	0	0-100	51	8	1-16	14	0	0-39	3	0	0-98	28	0	1-22	14	0	0-61
FORREST GENERAL HOSP HATTIESBURG MS 39401	33	24	7-43	22	45	21-62	67	9	4-19	8	0	0-99	294	4	3-9	152	2	1-11	42	2	0-30	277	5	3-8	271	1	0-4
FRANKLIN CO MEMORIAL HOSP- MEADVILLE MS 39653	4	75	2-77	.	.		1	0	0-99	.	.		27	4	1-23	9	11	1-50	.	.		16	6	0-34	10	10	0-49
GEORGE COUNTY MOBILE INFIR LUCEDALE MS 39452	9	33	9-67	6	67	13-79	2	0	0-93	.	.		42	2	1-18	13	0	2-41	.	.		50	6	1-16	8	0	0-76
GILMORE MEMORIAL HOSP- AMORY MS 38821	5	20	2-71	13	46	16-67	3	0	0-90	2	0	0-100	107	3	3-13	25	4	1-26	9	0	0-100	66	3	1-13	10	0	0-78
GOLDEN TRIANGLE REGIONAL M COLUMBUS MS 39701	7	57	11-75	9	33	11-68	46	9	2-21	29	0	0-72	152	3	2-10	87	3	1-13	15	0	0-94	68	3	2-13	90	2	0-9
GREENE CO HOSP LEAKESVILLE MS 39451	2	50	7-95	.	.		.	.		.	.		15	0	0-37	9	33	2-51	.	.		5	0	0-86	4	0	0-100

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
GREENWOOD LEFLORE HOSP GREENWOOD MS 38930	MS-37 *	2005	11	9-15	121	24	18-38	62	31	18-41	50	10	10-35	95	27	15-32	67	42	29-53	40	13	7-35	142	20	15-31
GRENADA LAKE MEDICAL CENTE GRENADA MS 38901	MS-38 *	804	14	9-17	37	43	17-48	46	39	18-44	13	0	7-52	36	22	11-39	43	44	27-56	14	29	6-49	74	16	11-30
GULF COAST COMMUNITY HOSP BILOXI MS 39531	MS-39 *	1015	10	7-14	38	34	15-45	19	32	11-50	11	27	7-56	59	22	13-35	29	48	21-55	16	6	3-42	99	19	10-26
H C WATKINS MEM HOSP QUITMAN MS 39355	MS-40	464	13	8-17	23	57	20-59	27	19	15-48	6	17	4-68	22	27	9-43	3	67	9-90	17	29	9-50	48	10	8-31
HANCOCK GENERAL HOSP- BAY SAINT LOUIS MS 39520	MS-41 *	536	14	8-16	19	47	11-51	10	40	8-60	16	6	6-46	22	18	9-44	28	64	22-58	20	15	5-41	49	18	9-32
HARDY WILSON MEMORIAL HOSP HAZLEHURST MS 39083	MS-42 *	416	15	10-19	12	75	14-64	20	40	15-54	8	13	3-57	28	36	10-41	9	44	13-70	21	24	5-40	61	15	11-33
HILLCREST HOSP CALHOUN CITY MS 38916	MS-43 *	229	16	8-18	3	67	4-85	8	38	10-68	2	0	1-89	8	13	4-58	5	60	10-80	14	7	4-46	35	29	11-40
HINDS GENERAL HOSP JACKSON MS 39204	MS-44	2714	11	8-15	147	32	19-37	101	25	20-39	32	22	7-36	117	21	16-32	78	45	27-50	59	8	11-36	227	15	12-25
HOUSTON COMMUNITY HOSP HOUSTON MS 38851	MS-45 *	394	11	7-16	7	29	8-69	8	38	8-66	12	0	3-46	10	10	4-52	13	77	24-74	19	5	2-37	61	20	9-30
HUMANA HOSP NATCHEZ NATCHEZ MS 39120	MS-46	438	11	6-15	21	43	12-50	13	15	9-55	7	29	1-58	12	0	5-51	11	45	15-67	15	20	4-46	49	22	10-34
HUMPHREYS CO MEMORIAL HOSP BELZONI MS 39038	MS-47 *	202	12	8-19	8	63	9-68	11	64	8-58	3	0	1-81	15	13	9-51	5	20	9-78	6	17	2-65	28	14	6-34
ITAWAMBA CO HOSP- FULTON MS 38843	MS-48 *	306	17	8-18	6	83	11-78	16	50	11-54	5	60	3-71	10	50	6-56	9	44	15-73	7	14	3-62	60	27	12-35
JASPER HEALTH CARE INSTITU BAY SPRINGS MS 39422	MS-49	229	17	9-20	9	100	20-78	7	57	10-71	2	50	0-90	8	50	5-61	5	40	12-82	5	0	1-68	34	21	12-41
JEFF ANDERSON REGIONAL MED MERIDIAN MS 39301	MS-50 *	1580	10	9-15	121	30	25-45	32	38	16-47	21	10	4-37	62	23	14-35	50	44	26-54	15	33	6-48	148	16	13-28
JEFFERSON CO HOSP FAYETTE MS 39069	MS-51 *	216	6	6-16	3	100	4-85	5	0	5-73	.	.		19	5	9-47	1	0	0-97	19	11	3-39	21	5	7-41
JEFFERSON DAVIS CO HOSP- PRENTISS MS 39474	MS-52 *	171	19	9-21	5	80	11-82	7	29	10-72	2	100	0-90	17	35	9-49	4	50	10-86	8	13	2-56	44	20	8-31
JEFFERSON DAVIS MEMORIAL H NATCHEZ MS 39120	MS-53 *	1291	12	8-15	57	30	14-39	55	35	16-40	16	19	7-47	49	18	12-35	51	39	23-51	41	24	10-38	135	16	12-27
JONES CO COMMUNITY HOSP- LAUREL MS 39440	MS-54	2459	10	9-15	157	29	22-40	74	39	21-43	53	11	8-32	129	20	15-31	86	33	29-51	47	21	10-36	218	17	13-26
KILMICHAEL HOSP & SWING BE KILMICHAEL MS 39747	MS-55	257	12	8-18	4	50	13-89	11	55	11-62	2	0	1-89	11	18	8-58	9	100	14-71	5	0	0-70	18	33	7-45
KINGS DAUGHTERS HOSP BROOKHAVEN MS 39601	MS-56 *	950	14	9-16	45	31	16-44	36	44	15-44	16	19	4-43	84	20	13-32	34	50	20-52	39	21	8-36	106	24	11-28
KINGS DAUGHTERS HOSP GREENVILLE MS 38701	MS-57 *	739	6	5-13	58	14	10-33	11	18	10-60	11	0	5-53	15	20	9-52	11	55	20-73	8	0	6-63	53	9	8-30
KINGS DAUGHTERS HOSP YAZOO CITY MS 39194	MS-58 *	539	12	8-16	17	53	18-62	24	38	14-50	15	40	12-56	38	21	12-40	8	50	12-71	23	17	5-39	54	17	12-36
KUHN MEMORIAL STATE HOSP VICKSBURG MS 39180	MS-59	78	9	5-20				3	67	3-83	1	0	0-99	4	0	3-75	2	50	5-94	4	0	2-75	14	0	4-45
LAIRD HOSP UNION MS 39365	MS-60 *	450	8	7-15	11	73	16-69	13	38	12-60	8	13	5-61	27	7	10-41	7	86	16-80	11	9	6-55	40	3	7-32
LAWRENCE CO HOSP MONTICELLO MS 39654	MS-61 *	425	11	8-17	14	57	20-68	15	13	12-57	2	50	1-89	32	19	11-40	6	50	11-78	9	11	2-54	60	23	11-32
LEAKE CO MEMORIAL HOSP CARTHAGE MS 39051	MS-62 *	247	19	11-22	8	50	15-75	12	17	12-62	5	20	1-69	22	41	15-52	4	50	9-84	9	22	6-60	32	34	14-46

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
GREENWOOD LEFLORE HOSP GREENWOOD MS 38930	16	25	9-56	21	29	17-58	52	6	3-21	13	0	0-98	233	4	3-10	133	5	2-13	31	0	0-78	165	5	3-10	139	1	0-6
GRENADA LAKE MEDICAL CENTE GRENADA MS 38901	8	25	7-66	8	38	13-73	11	0	2-45	3	0	0-100	109	9	2-12	50	0	1-18	7	0	0-87	68	4	1-13	36	3	0-25
GULF COAST COMMUNITY HOSP BILOXI MS 39531	19	37	8-51	11	36	17-71	15	13	1-37	16	0	0-86	112	4	2-12	26	8	0-26	4	0	0-99	87	2	2-12	102	0	0-8
H C WATKINS MEM HOSP QUITMAN MS 39355	2	50	0-90	4	50	5-80	4	0	0-81	.	.		71	7	2-14	17	18	1-34	2	0	0-100	37	5	1-18	16	0	0-44
HANCOCK GENERAL HOSP- BAY SAINT LOUIS MS 39520	6	50	7-74	7	14	10-72	6	17	1-62	.	.		49	6	1-16	34	3	2-23	3	0	0-97	59	5	1-14	19	0	0-52
HARDY WILSON MEMORIAL HOSP HAZLEHURST MS 39083	8	50	4-62	12	42	13-65	7	0	0-58	.	.		28	0	1-24	9	11	0-52	.	.		23	0	1-26	22	5	0-30
HILLCREST HOSP CALHOUN CITY MS 38916	4	25	2-76	3	0	2-82	2	0	0-93		.		23	0	0-26	6	17	0-63	.	.		21	5	0-27	9	11	0-89
HINDS GENERAL HOSP JACKSON MS 39204	32	31	13-51	37	32	20-53	58	5	3-19	13	0	0-72	383	3	3-8	167	5	2-12	29	0	0-92	201	6	3-9	142	1	0-6
HOUSTON COMMUNITY HOSP HOUSTON MS 38851	4	25	1-76	2	100	7-96	.	.		.	.		54	2	2-17	16	0	2-37	.	.		43	7	1-17	19	5	0-36
HUMANA HOSP NATCHEZ NATCHEZ MS 39120	9	11	6-62	1	100	0-97	8	0	1-54	4	0	0-100	47	6	1-15	28	7	1-24	3	0	0-100	22	5	1-27	40	0	0-17
HUMPHREYS CO MEMORIAL HOSP BELZONI MS 39038	2	0	1-90	2	0	6-94	.	.		.	.		15	7	0-36	7	0	1-58	.	.		34	6	1-20	11	0	0-51
ITAWAMBA CO HOSP- FULTON MS 38843	1	0	3-99	.	.		7	0	1-58	.	.		37	8	1-18	17	12	1-34	.	.		26	0	1-23	15	0	0-58
JASPER HEALTH CARE INSTITU BAY SPRINGS MS 39422	12	17	3-52	2	50	4-92	1	0	0-99	.	.		11	9	0-47	3	33	1-81	.			17	0	1-32	9	0	0-91
JEFF ANDERSON REGIONAL MED MERIDIAN MS 39301	16	6	8-54	7	57	13-77	18	0	1-33	17	6	0-87	217	1	2-8	71	4	2-15	26	0	0-77	114	5	2-11	118	0	0-7
JEFFERSON CO HOSP FAYETTE MS 39069	1	0	0-97	1	0	0-97	.	.		.	.		15	0	0-35	4	0	2-74	.	.		24	0	0-25	9	0	0-85
JEFFERSON DAVIS CO HOSP- PRENTISS MS 39474	1	100	1-97	.	.		1	0	0-99	.	.		18	0	0-32	4	25	0-77		.		9	11	0-52	2	0	0-100
JEFFERSON DAVIS MEMORIAL H NATCHEZ MS 39120	13	38	10-61	18	50	19-63	27	4	2-26	8	0	0-99	174	6	2-10	80	8	1-14	12	0	0-82	119	5	2-10	66	0	0-12
JONES CO COMMUNITY HOSP- LAUREL MS 39440	16	19	7-52	12	25	17-69	58	9	5-22	5	0	0-100	310	1	2-8	144	5	2-12	16	0	0-96	316	2	3-8	117	1	0-7
KILMICHAEL HOSP & SWING BE KILMICHAEL MS 39747	17	6	8-53	1	100	0-97	1	0	0-99	.	.		21	0	1-29	9	0	1-50		.		24	4	1-26	19	0	0-29
KINGS DAUGHTERS HOSP BROOKHAVEN MS 39601	13	15	5-53	17	29	14-58	6	0	1-62	4	0	0-100	132	2	2-10	23	9	1-28	10	0	0-84	83	4	2-12	23	9	1-25
KINGS DAUGHTERS HOSP GREENVILLE MS 38701	1	100	3-99	3	33	6-87	34	6	2-24	16	0	0-96	82	5	2-13	70	1	1-14	17	6	0-97	42	5	1-17	40	0	0-24
KINGS DAUGHTERS HOSP YAZOO CITY MS 39194	3	33	2-83	2	0	2-90	6	17	0-63	2	0	0-100	74	4	1-12	21	10	1-30	2	0	0-100	35	3	1-20	30	3	0-32
KUHN MEMORIAL STATE HOSP VICKSBURG MS 39180	.	.		1	100	3-99		.		.	.		8	13	0-68	5	0	0-71	1	0	0-100	6	0	0-80	1	100	0-100
LAIRD HOSP UNION MS 39365	.	.		3	100	9-91	1	0	0-100	.	.		75	3	2-13	22	9	1-29	1	0	0-100	60	0	1-14	25	4	0-30
LAWRENCE CO HOSP MONTICELLO MS 39654	4	25	1-76	5	20	14-85	.	.			.		52	8	2-16	27	7	3-29	1	0	0-100	50	0	1-16	19	0	0-38
LEAKE CO MEMORIAL HOSP CARTHAGE MS 39051	10	60	13-70		.						.		25	0	1-25	10	0	1-47	.	.		13	0	0-40	13	8	0-47

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LUCIUS OLEN CROSBY MEMORIA PICAYUNE MS 39466	MS-63 *	690	13	9-17	24	42	14-51	13	46	13-61	14	7	4-45	43	21	13-38	32	75	24-57	42	7	6-31	91	21	12-30
LUMBERTON CITIZEN'S HOSP LUMBERTON MS 39455	MS-64 *	83	6	4-19	2	50	5-93	1	100	1-97	.	.		.	.		2	0	5-93	.	.		12	0	4-49
LUMBERTON CITIZENS HOSP- LUMBERTON MS 39455	MS-65 *	1	100	2-98	.	.		.	.		.	.		.	.		1	100	2-98	.	.		.	.	
MADISON GENERAL HOSP CANTON MS 39046	MS-66 *	400	18	9-18	17	71	15-59	22	55	13-50	3	33	1-81	27	30	9-41	10	50	19-75	20	25	8-46	53	26	11-34
MAGEE GENERAL HOSP MAGEE MS 39111	MS-67 *	511	9	6-14	11	64	12-63	13	38	11-57	13	23	3-44	19	21	10-48	9	56	15-73	18	0	4-40	42	26	10-35
MAGNOLIA HOSP CORINTH MS 38834	MS-68 *	1267	10	8-15	43	33	20-49	42	29	16-43	21	29	7-43	69	20	13-33	49	29	25-52	36	14	7-35	156	16	13-27
MARION CO GENERAL HOSP- COLUMBIA MS 39429	MS-69 *	776	12	9-16	24	42	19-57	30	37	18-52	17	0	3-39	44	23	14-39	22	50	20-59	22	5	4-38	83	29	13-32
MARSHALL CO HOSP HOLLY SPRINGS MS 38635	MS-70 *	361	10	6-15	14	57	6-50	12	25	10-59	[illegible]	0	1-55	18	0	7-44	2	50	3-91	12	25	8-56	31	13	10-40
MATTY HERSEE HOSP MERIDIAN MS 39301	MS-71 *	86	14	5-20	3	67	2-82	5	20	2-69	.	.		7	0	4-61	3	67	4-84	3	33	0-82	10	20	4-52
MEMORIAL HOSP AT GULFPORT GULFPORT MS 39501	MS-72 *	1904	10	8-14	140	34	21-40	44	16	15-42	40	30	11-39	90	18	13-31	55	51	26-52	36	6	6-34	129	18	10-26
MERCY REGIONAL MEDICAL CEN VICKSBURG MS 39180	MS-73 *	945	14	9-17	91	26	18-39	38	34	17-46	26	12	5-35	41	24	10-36	29	48	23-58	15	7	7-50	79	22	12-32
MERIDIAN REGIONAL HOSP MERIDIAN MS 39301	MS-74 *	518	9	5-13	16	44	9-51	12	33	8-56	7	0	3-61	9	22	6-59	7	57	11-73	5	20	2-69	41	7	8-33
METHODIST HOSP HATTIESBURG MS 39401	MS-75 *	2236	9	6-13	142	24	17-35	78	28	17-38	44	18	8-33	70	13	11-31	42	36	24-54	25	20	8-43	157	17	10-24
METHODIST HOSP OF MIDDLE M LEXINGTON MS 39095	MS-76	479	6	7-16	12	17	16-67	20	15	12-50	6	0	1-63	43	12	14-40	6	50	9-74	38	16	8-36	38	8	8-34
METHODIST HOSP OF STONE CO WIGGINS MS 39577	MS-77 *	293	16	11-21	11	64	18-71	6	67	12-78	4	50	4-78	23	26	11-46	13	31	18-68	11	9	1-48	41	15	10-36
MISSISSIPPI BAPTIST MEDICA JACKSON MS 39201	MS-78	4874	10	8-15	467	19	21-35	164	29	20-35	114	16	11-29	135	27	15-30	131	28	27-45	95	21	12-33	237	22	15-29
MONTFORT JONES MEMORIAL HO KOSCIUSKO MS 39090	MS-79 *	610	12	10-18	19	53	19-62	27	33	16-51	12	33	3-48	27	19	12-44	23	26	21-59	37	11	8-37	86	22	14-33
NESHOBA CO GENERAL HOSP- PHILADELPHIA MS 39350	MS-80	404	10	7-15	12	92	22-74	14	50	11-57	7	0	1-59	14	21	9-53	6	33	9-75	16	6	2-41	41	17	8-33
NORTH MISSISSIPPI MEDICAL TUPELO MS 38801	MS-81	4725	9	8-14	375	19	17-32	155	25	19-35	73	18	11-33	137	28	16-31	142	31	28-46	64	14	10-33	279	17	13-25
NORTH PANOLA REGIONAL HOSP SARDIS MS 38666	MS-82 *	231	17	9-20	7	86	12-75	12	50	19-70	5	0	1-68	16	19	10-51	7	57	15-78	9	22	2-54	39	21	9-36
NORTH SUNFLOWER CO HOSP- RULEVILLE MS 38771	MS-83 *	288	15	11-21	16	56	11-54	22	36	15-53	3	33	0-83	16	19	7-46	39	26	25-56	1	0	0-97	14	7	4-44
NORTHWEST MISS REGIONAL ME CLARKSDALE MS 38614	MS-84	1720	12	9-15	96	26	18-39	70	40	20-42	31	19	7-36	107	23	16-33	39	46	24-55	52	21	9-34	166	18	15-30
NOXUBEE GENERAL HOSP MACON MS 39341	MS-85 *	314	12	9-19	12	75	16-67	9	56	9-64	4	0	2-74	16	6	7-47	13	31	14-62	12	25	5-51	36	6	10-37
OKITBBEHA CO HOSP STARKVILLE MS 39759	MS-86 *	712	15	8-16	57	42	11-35	25	48	13-48	24	8	5-37	23	26	9-43	27	52	22-58	20	15	7-43	55	27	10-33
OKOLONA COMMUNITY HOSP OKOLONA MS 38860	MS-87 *	168	10	8-20	4	75	19-93	3	67	4-85	2	0	0-92	3	33	4-85	2	0	3-91	8	13	2-57	20	10	7-43
OXFORD LAFAYETTE CO HOSP OXFORD MS 38655	MS-88 *	1366	11	7-14	74	34	18-41	30	27	14-46	21	19	6-41	71	23	16-36	36	42	23-54	22	32	10-47	92	17	11-29

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LUCIUS OLEN CROSBY MEMORIA PICAYUNE MS 39466	11	18	5-57	14	36	16-65	2	0	0-98	.	.		81	2	1-12	35	11	2-23	4	0	0-100	71	1	2-13	21	0	0-39
LUMBERTON CITIZEN'S HOSP LUMBERTON MS 39455	.	.		.	.		.	.		.	.		8	13	0-55	3	33	2-81	.	.		12	0	0-46	4	0	0-100
LUMBERTON CITIZENS HOSP-LUMBERTON MS 39455	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
MADISON GENERAL HOSP CANTON MS 39046	7	0	4-66	4	50	7-82	2	50	1-89	1	0	0-100	46	4	1-17	14	0	1-38	2	0	0-100	23	9	1-26	15	7	0-57
MAGEE GENERAL HOSP MAGEE MS 39111	5	40	3-72	5	60	8-78	1	0	0-100	.	.		64	0	1-14	23	4	2-29	1	0	0-100	66	2	1-13	24	0	0-29
MAGNOLIA HOSP CORINTH MS 38834	6	17	6-72	14	36	14-63	22	18	2-31	1	0	0-100	168	4	2-10	30	13	2-25	8	0	0-99	147	2	2-9	77	1	0-10
MARION CO GENERAL HOSP-COLUMBIA MS 39429	11	9	2-53	5	100	18-88	11	0	2-45	.	.		95	4	2-12	20	15	3-34	3	0	0-100	81	2	2-12	27	4	0-27
MARSHALL CO HOSP HOLLY SPRINGS MS 38635	1	0	0-98	1	100	1-97	2	0	0-90	.	.		60	3	1-15	18	33	1-33	1	0	0-100	27	0	0-22	10	0	0-52
MATTY HERSEE HOSP MERIDIAN MS 39301	2	0	1-90	.	.		.	.		.	.		8	0	0-66	.	.		1	0	0-100	4	25	0-85	2	0	0-100
MEMORIAL HOSP AT GULFPORT GULFPORT MS 39501	21	14	6-47	15	20	15-63	44	5	3-22	22	0	0-83	190	6	2-10	135	4	1-12	16	0	0-97	151	3	2-9	90	0	0-9
MERCY REGIONAL MEDICAL CEN VICKSBURG MS 39180	10	40	6-61	8	38	15-75	19	5	1-32	6	0	0-98	108	6	2-13	51	4	1-17	5	0	0-96	41	5	1-18	58	5	0-12
MERIDIAN REGIONAL HOSP MERIDIAN MS 39301	22	41	14-57	4	75	4-78	6	33	1-62	1	0	0-100	36	6	1-20	17	0	0-34	1	0	0-100	26	4	1-23	22	0	0-47
METHODIST HOSP HATTIESBURG MS 39401	16	19	9-55	14	29	15-64	56	13	3-20	33	6	0-52	255	4	2-9	160	2	1-11	26	0	0-85	193	4	2-8	220	1	0-5
METHODIST HOSP OF MIDDLE M LEXINGTON MS 39095	6	0	2-66	1	0	0-97	1	0	0-100	.	.		63	5	1-14	10	0	0-54	1	0	0-100	32	0	1-20	23	0	0-32
METHODIST HOSP OF STONE CO WIGGINS MS 39577	5	60	10-82	5	20	5-74	5	0	0-71	.	.		38	5	2-21	14	7	2-41	.	.		23	4	1-26	18	6	0-32
MISSISSIPPI BAPTIST MEDICA JACKSON MS 39201	29	17	8-45	34	50	26-60	110	9	4-16	103	0	0-11	528	5	3-8	165	4	2-11	48	4	0-14	469	4	3-7	379	1	0-4
MONTFORT JONES MEMORIAL HO KOSCIUSKO MS 39090	9	22	8-65	9	11	12-70	9	22	1-50	.	.		69	3	2-14	13	0	1-40	3	0	0-100	40	0	1-18	39	0	0-17
NESHOBA CO GENERAL HOSP-PHILADELPHIA MS 39350	6	0	2-67	.	.		2	0	0-91	.	.		54	0	1-15	22	5	2-30	5	0	0-100	43	2	1-17	13	0	0-60
NORTH MISSISSIPPI MEDICAL TUPELO MS 38801	35	23	10-45	51	41	27-57	84	6	4-17	14	0	0-98	580	4	3-8	295	4	1-10	57	0	0-34	382	3	2-7	327	0	0-4
NORTH PANOLA REGIONAL HOSP SARDIS MS 38666	4	50	3-77	1	100	2-98	.	.		.	.		30	7	1-22	16	6	1-35	1	0	0-100	13	8	0-42	1	0	0-100
NORTH SUNFLOWER CO HOSP-RULEVILLE MS 38771	1	100	1-97	4	0	5-80	1	0	0-99	.	.		33	3	1-20	7	0	0-60	.	.		41	0	1-17	15	0	0-42
NORTHWEST MISS REGIONAL ME CLARKSDALE MS 38614	13	23	10-60	12	33	16-68	31	10	3-26	15	0	0-98	225	3	2-9	74	5	2-16	16	0	0-72	132	10	2-11	119	3	0-7
NOXUBEE GENERAL HOSP MACON MS 39341	4	25	2-76	6	0	7-72	6	0	0-63	.	.		39	3	1-19	10	0	0-48	.	.		12	33	1-41	14	7	0-44
OKITBBEHA CO HOSP STARKVILLE MS 39759	7	43	7-69	9	44	10-66	33	6	3-26	3	0	0-100	85	8	2-13	41	5	1-19	11	0	0-99	54	6	1-15	30	0	0-25
OKOLONA COMMUNITY HOSP OKOLONA MS 38860	10	10	6-60	1	0	0-97	.	.		.	.		10	0	1-47	1	0	0-100	.	.		12	0	0-42	3	0	0-99
OXFORD LAFAYETTE CO HOSP OXFORD MS 38655	12	17	7-58	6	33	10-76	64	6	3-18	20	0	0-92	131	2	2-10	73	7	2-16	3	0	0-100	114	9	2-11	140	1	0-6

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PEARL RIVER CO HOSP POPLARVILLE MS 39470	MS-89 *	227	17	10-21	6	67	21-87	10	40	10-63	8	25	4-60	9	0	6-59	7	57	13-75	6	0	6-71	39	31	11-38
PERRY CO GENERAL HOSP RICHTON MS 39476	MS-90 *	183	13	8-20	5	80	6-75	7	57	12-74	4	25	9-84	15	33	7-49	13	31	14-62	5	0	2-68	23	4	6-38
PONTOTOC COMMUNITY HOSPITA PONTOTOC MS 38663	MS-91 *	386	12	8-17	9	67	8-63	14	50	15-62	3	0	0-84	13	31	10-56	5	60	10-81	7	14	2-60	101	15	10-27
QUITMAN CO HOSP MARKS MS 38646	MS-92 *	341	14	10-20	7	43	6-67	15	40	15-61	6	17	3-66	21	19	12-49	6	67	21-87	20	15	5-41	57	14	13-35
RANKIN GENERAL HOSP- BRANDON MS 39042	MS-93	636	13	9-17	38	37	18-49	24	29	15-50	13	23	3-46	36	17	11-38	32	38	20-53	17	18	5-44	70	19	10-29
RILEY KEMPER COMMUNITY HOS DE KALB MS 39328	MS-94 *	188	15	9-20	5	60	18-89	11	36	9-59	4	50	3-76	13	46	10-56	2	0	1-89	3	0	0-83	25	32	11-45
RIVER OAKS HOSPITAL FLOWOOD MS 39208	MS-95 *	384	3	3-11	24	4	9-43	6	33	6-69	4	0	1-74	4	0	1-74	3	67	7-88	8	0	1-56	17	0	4-41
RUSH FOUNDATION HOSP- MERIDIAN MS 39301	MS-96 *	1659	10	8-15	102	29	18-38	53	34	16-40	15	27	7-49	74	18	17-37	48	31	25-53	26	8	10-44	128	14	12-27
RUSH HOSP NEWTON NEWTON MS 39345	MS-97 *	245	20	9-20	8	75	14-74	7	57	13-75	1	0	0-98	7	57	8-68	10	80	15-70	9	11	3-55	26	19	8-39
S E LACKEY MEMORIAL HOSP FOREST MS 39074	MS-98	250	15	9-19	14	57	8-53	5	20	5-72	4	25	3-76	14	36	6-48	10	50	13-67	12	33	6-53	35	14	9-37
SENATOBIA COMMUNITY HOSP- SENATOBIA MS 38668	MS-99 *	376	17	10-20	13	54	9-56	12	33	12-62	12	25	5-51	23	30	10-44	13	31	18-67	32	19	7-37	51	22	11-35
SHARKEY ISAQUENA COMMUNITY ROLLING FORK MS 39159	MS-100	214	14	8-19	5	60	6-75	3	67	4-84	3	0	1-81	12	33	8-54	9	67	14-72	15	13	7-49	38	16	8-35
SHELBY COMMUNITY HOSP SHELBY MS 38774	MS-101*	128	27	12-27	2	50	1-89	9	33	7-61	4	25	1-74	9	33	6-59	4	50	9-84	15	47	7-49	28	32	10-42
SIMPSON GENERAL HOSP MENDENHALL MS 39114	MS-102*	300	17	12-23	10	70	17-73	14	36	15-61	1	0	0-98	24	8	9-42	13	62	22-72	7	14	3-62	77	25	15-35
SINGING RIVER HOSP SYSTEM PASCAGOULA MS 39567	MS-103*	2888	9	7-13	161	34	18-36	82	34	18-38	67	4	9-30	138	20	14-29	67	54	25-49	35	3	5-33	249	14	12-25
SMITH COUNTY GENERAL HOSPI RALEIGH MS 39153	MS-104*	163	10	8-20	5	60	11-82	4	25	3-75	4	0	2-74	4	25	3-76	10	50	17-72	4	0	1-74	34	6	8-35
SOUTH MISSISSIPPI STATE HO LAUREL MS 39440	MS-105*	140	14	5-16	.	.		6	17	4-66	2	100	1-89	9	33	4-55	8	88	13-72	2	0	0-96	18	17	5-41
SOUTH PANOLA COMMUNITY HOS BATESVILLE MS 38606	MS-106*	332	12	9-18	18	28	8-47	21	29	15-54	7	14	4-62	9	33	11-67	9	44	16-74	4	0	2-75	45	22	11-36
SOUTH SUNFLOWER CO HOSP INDIANOLA MS 38751	MS-107*	506	11	8-16	18	39	10-51	23	35	12-48	5	20	2-69	34	15	10-38	19	37	17-59	13	15	2-45	48	10	11-35
SOUTH WASHINGTON CO HOSP HOLLANDALE MS 38748	MS-108*	281	24	10-21	3	33	4-84	19	42	12-51	4	0	0-76	14	29	7-49	6	33	10-75	48	29	11-38	38	34	11-39
SOUTHWEST MISSISSIPPI GENE MCCOMB MS 39648	MS-109*	1513	10	8-15	88	27	18-39	54	39	17-41	26	15	7-38	61	16	13-34	36	31	24-56	57	28	10-34	169	15	13-27
ST DOMINIC JACKSON MEMORIA JACKSON MS 39216	MS-110*	3928	8	7-13	252	22	19-35	82	23	18-38	75	13	11-32	132	20	16-32	94	38	27-48	50	10	9-34	246	19	13-26
TALLAHATCHIE GENERAL HOSP- CHARLESTON MS 38921	MS-111*	211	15	9-21	9	56	12-68	11	36	13-65	4	25	4-77	10	20	6-55	5	80	12-82	8	38	5-62	38	18	11-38
THAGGARD HOSP MADDEN MS 39109	MS-112*	238	9	8-19	4	75	6-80	10	20	10-63	3	0	1-81	9	22	6-58	17	35	19-63	22	5	4-38	51	6	7-28
TIPPAH CO HOSP RIPLEY MS 38663	MS-113*	658	11	10-18	13	46	20-71	31	26	20-53	4	25	2-74	40	30	13-40	10	20	12-66	19	16	8-46	116	12	13-29
TISHOMINGO HEALTH SERVICES IUKA MS 38852	MS-114*	570	9	7-15	9	33	8-64	21	14	14-53	12	0	2-45	25	40	15-50	18	56	17-59	23	26	9-44	68	7	10-30

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PEARL RIVER CO HOSP POPLARVILLE MS 39470	5	40	4-74	3	0	3-84	.	.		.	.		23	9	1-27	11	9	0-45	.	.		27	7	1-24	9	11	0-75
PERRY CO GENERAL HOSP RICHTON MS 39476	2	0	4-93	1	100	2-98	5	20	0-75	.	.		16	6	1-34	1	0	0-99	1	0	0-100	15	0	0-35	10	0	0-56
PONTOTOC COMMUNITY HOSPITA PONTOTOC MS 38663	6	17	6-73	3	33	5-86	.	.		.	.		37	8	1-18	6	17	0-66	.	.		20	5	0-29	29	0	0-24
QUITMAN CO HOSP MARKS MS 38646	4	25	5-80	4	75	7-82	3	0	0-86	1	0	0-100	35	3	2-23	7	14	0-59	.	.		20	5	0-28	10	0	0-70
RANKIN GENERAL HOSP- BRANDON MS 39042	9	0	1-58	10	40	8-61	16	13	1-35	1	0	0-100	72	4	2-15	27	7	2-27	.	.		25	4	0-24	37	0	0-23
RILEY KEMPER COMMUNITY HOS DE KALB MS 39328	9	0	6-63	.	.		1	0	0-100	.	.		17	6	1-32	4	0	0-76	.	.		7	14	0-64	7	0	0-70
RIVER OAKS HOSPITAL FLOWOOD MS 39208	2	0	0-91	1	0	1-97	8	13	1-54	1	0	0-100	37	3	1-19	6	0	0-92	12	0	0-100	11	0	0-46	98	0	0-8
RUSH FOUNDATION HOSP- MERIDIAN MS 39301	15	13	8-55	9	56	19-77	34	24	2-24	5	0	0-100	230	6	3-10	113	3	2-13	26	0	0-36	166	3	2-9	97	0	0-8
RUSH HOSP NEWTON NEWTON MS 39345	9	56	8-65	3	33	4-85	10	0	1-47	1	0	0-100	25	8	1-26	9	0	1-50	.	.		20	15	1-30	12	8	0-55
S E LACKEY MEMORIAL HOSP FOREST MS 39074	7	0	3-63	2	50	5-93	.	.		.	.		29	7	2-25	11	0	2-45	.	.		30	0	1-22	6	17	0-65
SENATOBIA COMMUNITY HOSP- SENATOBIA MS 38668	7	14	5-67	4	75	8-84	.	.		.	.		31	10	2-23	20	25	3-34	2	0	0-100	31	3	1-22	3	33	0-99
SHARKEY ISAQUENA COMMUNITY ROLLING FORK MS 39159	3	33	2-83	.	.		1	0	0-100	.	.		21	5	0-28	4	0	0-75	1	0	0-100	23	0	1-26	12	0	0-46
SHELBY COMMUNITY HOSP SHELBY MS 38774	5	60	8-80	4	75	8-83	.	.		.	.		8	0	1-53	5	0	0-85	.	.		4	0	0-77	.	.	
SIMPSON GENERAL HOSP MENDENHALL MS 39114	3	33	8-90	1	0	1-97	7	0	0-63	.	.		37	11	2-21	6	0	1-62	4	0	0-77	15	7	0-36	11	0	0-44
SINGING RIVER HOSP SYSTEM PASCAGOULA MS 39567	18	22	6-49	16	25	22-69	40	3	2-21	15	0	0-97	330	3	3-8	142	6	2-12	33	0	0-27	226	4	2-8	241	1	0-5
SMITH COUNTY GENERAL HOSPI RALEIGH MS 39153	2	50	1-90	1	0	0-97	.	.		1	0	0-100	10	0	0-53	18	6	2-34	.	.		21	5	0-28	9	0	0-99
SOUTH MISSISSIPPI STATE HO LAUREL MS 39440	3	0	0-87	.	.		1	0	0-98	.	.		17	6	0-35	5	0	0-85	1	0	0-100	25	0	0-24	5	0	0-100
SOUTH PANOLA COMMUNITY HOS BATESVILLE MS 38606	1	0	0-98	3	67	9-90	.	.		.	.		53	6	2-17	15	7	0-38	7	0	0-99	18	6	1-31	15	0	0-49
SOUTH SUNFLOWER CO HOSP INDIANOLA MS 38751	6	33	3-68	4	75	7-82	1	0	0-97	.	.		77	5	1-12	14	7	1-38	1	0	0-100	46	7	1-17	16	0	0-58
SOUTH WASHINGTON CO HOSP HOLLANDALE MS 38748	1	0	1-97	6	83	9-76	1	0	0-100	.	.		13	0	0-40	6	33	1-62	.	.		17	12	1-32	7	0	0-94
SOUTHWEST MISSISSIPPI GENE MCCOMB MS 39648	26	12	7-45	15	40	20-68	51	8	2-18	10	0	0-100	185	3	2-10	93	5	1-13	24	0	0-61	150	3	2-9	64	2	0-12
ST DOMINIC JACKSON MEMORIA JACKSON MS 39216	34	0	9-45	26	27	19-56	77	12	4-19	102	0	0-9	447	6	3-8	186	3	1-10	18	0	0-85	485	6	3-7	252	1	0-4
TALLAHATCHIE GENERAL HOSP- CHARLESTON MS 38921	1	100	2-98	.	.		4	0	0-85	.	.		18	0	1-31	2	0	0-95	1	0	0-100	16	6	1-33	7	0	0-93
THAGGARD HOSP MADDEN MS 39109	2	0	0-90	2	50	6-94	1	0	0-98	.	.		21	5	0-28	3	0	0-82	1	0	0-100	11	9	0-44	11	0	0-86
TIPPAH CO HOSP RIPLEY MS 38663	25	28	10-49	9	22	12-69	3	33	0-82	.	.		88	3	1-11	30	10	4-29	8	0	0-95	39	3	1-18	32	0	0-20
TISHOMINGO HEALTH SERVICES IUKA MS 38852	8	38	8-69	3	33	4-84	.	.		.	.		77	4	1-12	17	0	2-35	5	0	0-100	69	3	2-13	26	4	0-37

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
TUNICA CO HOSP TUNICA MS 38676	MS-115	121	12	9-23	5	40	2-69	2	0	2-90	1	0	0-100	12	0	6-51	6	50	14-80	7	0	2-59	15	13	7-48
TYLER HOLMES MEMORIAL HOSP WINONA MS 38967	MS-116*	503	15	9-17	16	63	18-64	40	23	17-45	9	33	5-58	29	28	11-42	11	64	14-66	23	17	7-42	54	13	9-31
UNION CO GENERAL HOSP NEW ALBANY MS 38652	MS-117	1160	11	7-14	53	40	18-44	32	47	17-49	20	15	4-39	49	27	13-37	31	52	23-57	46	28	8-34	139	10	10-25
UNIVERSITY HOSP JACKSON MS 39216	MS-118*	1563	14	7-14	147	31	21-40	50	36	14-39	19	37	8-46	40	20	12-39	29	38	19-53	39	21	5-31	66	26	11-31
VICKSBURG MEDICAL CENTER VICKSBURG MS 39180	MS-119*	1044	11	8-15	60	43	17-42	38	29	15-43	19	26	8-45	46	24	12-36	27	33	23-59	33	21	9-39	71	20	11-31
WALTHALL CO GENERAL HOSP TYLERTOWN MS 39667	MS-120	509	10	6-14	9	78	15-73	16	25	12-55	10	20	3-51	18	28	9-47	10	10	14-68	14	21	3-45	48	21	8-31
WAYNE GENERAL HOSP WAYNESBORO MS 39367	MS-121*	587	12	8-16	25	52	23-61	15	53	11-55	8	0	1-55	29	24	13-44	24	50	22-60	15	13	5-47	49	24	11-35
WEBSTER GENERAL HOSP EUPORA MS 39744	MS-122*	519	11	8-16	26	69	15-50	16	38	11-53	11	0	3-50	6	0	3-65	14	57	18-66	17	12	6-46	94	16	11-28
WEST SCOTT BAPTIST HOSP MORTON MS 39117	MS-123*	227	18	9-19	4	50	7-82	11	36	10-60	7	43	7-68	20	50	9-46	6	67	13-79	22	5	5-39	24	13	8-41
WHITFIELD MEDICAL SURGICAL WHITFIELD MS 39193	MS-124*	161	9	4-15	4	25	2-74	2	0	0-89	10	10	1-49	3	33	2-82	3	67	4-85	8	0	1-56	24	25	7-40
WINSTON CO COMMUNITY HOSP- LOUISVILLE MS 39339	MS-125*	437	11	9-18	22	32	20-60	23	30	12-47	10	0	4-54	21	29	9-44	14	79	18-66	12	17	4-49	52	12	12-36
WOMANS HOSP JACKSON MS 39216	MS-126*	42	0	1-19	5	0	1-68	.	.		.	.		1	0	2-98	.	.		.	.		.	.	
YALOBUSHA GENERAL HOSP WATER VALLEY MS 38965	MS-127*	297	14	9-19	24	58	17-55	12	17	7-54	6	0	1-63	12	8	5-49	18	33	17-60	4	25	0-77	44	16	11-36

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
TUNICA CO HOSP TUNICA MS 38676	6	33	8-75	2	0	6-95	.	.		.			10	0	0-48	3	0	0-90	1	0	0-100	11	0	0-45	1	0	0-100
TYLER HOLMES MEMORIAL HOSP WINONA MS 38967	8	63	8-68	3	33	4-84	9	11	1-50	.	.		48	4	1-15	20	5	2-31	2	50	0-95	34	9	1-21	25	4	0-24
UNION CO GENERAL HOSP NEW ALBANY MS 38652	23	4	5-44	8	50	12-72	5	20	1-68	.	.		169	3	2-9	29	0	1-24	12	0	0-100	88	5	2-12	53	0	0-18
UNIVERSITY HOSP JACKSON MS 39216	72	11	4-33	13	54	18-69	23	35	2-29	101	2	0-8	87	10	3-14	44	5	0-18	26	0	0-80	102	5	1-10	78	3	0-11
VICKSBURG MEDICAL CENTER VICKSBURG MS 39180	16	31	8-54	10	60	13-68	20	5	1-31	7	14	0-85	115	3	2-11	75	7	3-17	5	0	0-100	103	1	2-11	57	2	0-13
WALTHALL CO GENERAL HOSP TYLERTOWN MS 39667	12	33	7-58	6	33	8-73	2	0	0-93	.	.		79	0	2-13	21	5	0-30	1	0	0-100	78	4	1-11	12	0	0-76
WAYNE GENERAL HOSP WAYNESBORO MS 39367	6	17	2-67	3	0	5-85	5	0	1-67	1	0	0-100	79	4	1-12	19	5	0-32	1	0	0-100	39	5	1-18	35	3	0-18
WEBSTER GENERAL HOSP EUPORA MS 39744	9	22	6-63	4	25	5-80	1	0	0-100	.	.		77	1	2-14	11	18	1-44	1	0	0-100	59	2	1-14	29	0	0-21
WEST SCOTT BAPTIST HOSP MORTON MS 39117	4	50	7-82	1	100	2-98	4	0	0-85	.	.		18	11	0-32	13	15	0-41	.	.		24	8	0-25	5	0	0-81
WHITFIELD MEDICAL SURGICAL WHITFIELD MS 39193	1	0	0-100	1	0	0-97	13	0	0-41	.	.		12	0	0-55	7	0	0-63	2	0	0-100	1	0	0-99	3	0	0-99
WINSTON CO COMMUNITY HOSP- LOUISVILLE MS 39339	3	0	1-82	3	0	4-85	.	.		.	.		54	4	2-16	13	8	2-42	4	0	0-100	31	3	1-21	33	0	0-21
WOMANS HOSP JACKSON MS 39216	.	.		.	.		.	.		.	.		1	0	0-100	.	.		16	0	0-100	.			.	.	
YALOBUSHA GENERAL HOSP WATER VALLEY MS 38965	6	67	6-72	1	0	0-97	3	0	0-81	1	0	0-100	46	0	1-16	5	0	0-70	3	0	0-100	27	7	1-22	6	0	0-97

*Written Comments Not Submitted.

Garden Park Community Hospital
1501 45th Avenue, Gulfport, Mississippi 39501 | 601 864-4210

October 21, 1987

Dr. William Roper
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

Thank you for this opportunity to respond to the release of data on hospital mortality rates for 1986.

AMI Garden Park Community Hospital is a 120 bed acute care hospital whose case mix includes general medical and surgical patients.

We have reviewed the mortality information provided by Health Care Financing Administration (HCFA) and validate that, with minor exceptions, the data is accurate.

On an ongoing basis, the medical staff has always reviewed the medical record of every patient who dies in our facility for appropriateness of care. Mortality review is an on-going process of the Quality Assurance Program and peer review activities are an intergal part of the monitoring of healthcare delivery at this hospital.

It is to be noted that the death rate, for each diagnostic category, at Garden Park is within the predicted ranges as determined by the Health Care Financing Administration. The Medical Staff of Garden Park Community Hospital will continue to review all mortality cases for quality and appropriateness of care rendered to the individual patient. Trending analysis from these reviews is a constant endeavor to assist in identififying opportunities to improve care.

Thank you for the opportunity to present this response.

Sincerely,

L.V. Johnston
Executive Director

LVJ/cma

NORTH MISSISSIPPI
MEDICAL CENTER

October 22, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Post Office Box 26684
Baltimore, Maryland 21207

RE: The Mortality Data Comments of the Management and Medical Staff of the Baldwyn Hospital, Provider # 250137

Dear Dr. Roper:

As a provider of health care services to Medicare beneficiaries in Northeast Mississippi, Baldwyn Hospital acknowledges and supports the Health Care Financing Administration's (HCFA) extensive quality review initiative. Baldwyn Hospital has expended considerable effort in the past twelve to eighteen months to develop internal systems to monitor and evaluate the quality of care provided in the institution, and to address areas where quality of care issues exist. It is our belief that an appropriate assessment of a hospital's performance is a complex task and one that cannot be totally measured and reported by statistically oriented mortality data.

It is the opinion of the management and Medical Staff of Baldwyn Hospital that Medicare beneficiaries are entitled to know the limitations of the soon-to-be-published mortality data, to learn of institutional specific variables that affect mortality rates, and to have assistance from local health care providers in determining the meaning of the numbers provided. Since the Health Care Financing Administration itself "cannot and (does) not recommend the use of the information by itself to make judgements about the quality of care in the individual hospital, or to make comparisons among hospitals", it is extremely important that the public utilizing this information have a thorough understanding of its usefulness to consumers.

Baldwyn Hospital is a 50 bed acute care facility located in Baldwyn, Mississippi. The hospital is owned by North Mississippi Medical Center which is located 20 miles to the south. A number of health care services are provided by the hospital. One of the most significant services is a swing bed program. A swing bed program is a Medicare certified skilled nursing service that is available only in hospitals of 50 beds or less. Patients admitted to a swing bed program are not considered acute care patients; however, the Health Care Financing Administration has included deaths of patients receiving skilled nursing care as a part of the mortality information used to determine death rates.

830 South Gloster Street
Tupelo, Mississippi 38801
(601) 841-3000

Regarding the specific data for Baldwyn Hospital, it is our observation that Baldwyn Hospital consistently maintains an unusual high daily census of swing bed patients. Two primary factors contribute to this situation. First, because Baldwyn Hospital is affiliated with North Mississippi Medical Center which is a large regional referral center for specialty services, a high number of patients are discharged to the Baldwyn Swing Bed Program for additional skilled nursing care. As a large rural regional referral center, North Mississippi Medical Center treats the severest of patients within a 60 mile radius. The nature of this referral base to North Mississippi Medical Center, which consists of many chronic illnesses including oncology, cardiology and chronic pulmonary disease patients, will have a dramatic adverse affect on the mortality rates of Baldwyn Hospital. An active swing bed program which has a high concentration of these type patients will result in a higher than average age of its patients. In Baldwyn's case, the average age was 79.13 years.

Secondly, the State of Mississippi has had a moratorium on additional nursing home beds since the early 1980's. There is an acute shortage of nursing home beds that might otherwise be used to provide after-care for the elderly following inpatient care. The nursing home bed shortage has resulted in an extremely high utilization of the Swing Bed Program at Baldwyn Hospital.

Patients utilizing the Swing Bed Program are often approaching the end stage of a chronic, degenerative disease. Although all patients admitted to the Swing Bed Program have rehabilitative potential, many of these patients die from chronic diseases of a body system other than the disease which caused their initial admission to the hospital and subsequent admission to the Swing Bed Program.

Therefore, by nature of the design and intent of a swing bed program which allows for the provision of skilled nuring services in an acute care facility, we suggest that the mortality rate data be adjusted to exclude skilled nursing programs.

Baldwyn Hospital is committed to continuing to strive to monitor and report the findings of quality assessment activities to its management, medical staff, and governing body. The facility's administration and its medical staff encourage HCFA to verify the validity and reliability of the data and to strive to give Medicare beneficiaries and others adequate direction in use of the data. We wish to see HCFA place more emphasis on measuring the severity of illness and documenting the impact varying degrees of severity can have on predicted mortality rates. We are concerned that the public understand that this mortality data includes deaths (7) that did not occur in hospital. The data also includes 6 deaths that occurred in the hospital within 24 hours of admission. The deaths occurring in the first twenty-four hours of admission are reflective of the tendency to receive transfers and referrals of patients in the end stage of chronic degenerative disease processes when there is little, if any, hope for an outcome other than death. The mortality rates included in these two categories (29% of total reported deaths at Baldwyn Hospital) should not be heavily valued in considering hospital performance since inpatient facilities do not control the quality of care provided before and after discharge. We would also like to point out to the public that due to multiple disease processes in many patients the cause of death may not have been directly related to the reason the patient was admitted.

As previously stated, we believe that mortality rates alone cannot be used to measure hospital performance, but can be used to reflect areas worthy of further study. We encourage the public to seek the assistance of local health care providers in interpreting mortality data and to request additional information on quality of care indicators where concerns exist.

In future efforts to supply the public with quality of care data, we request that HCFA consider supplementing mortality data with other quality indicators. For instance, survival rates for various types of malignancies could be reported rather than the death rate of all malignancies. Nosocomial infection rates, surgical complications, and other indicators will be more valuable to the public, as well as to health care providers, than averaged mortality rates.

In closing, the management and Medical Staff of Baldwyn Hospital once again commend HCFA for its initial efforts to develop quality measurements and its commitment to develop, refine, and perfect other measures of quality.

Sincerely,

John W. Roberts, Vice President
Administrator, Baldwyn Hospital

Hugh Moore, M.D., Chairman
Quality Assessment Committee

kf

BAPTIST MEMORIAL HOSPITAL
BOONEVILLE

Second and Washington Street
Booneville, Mississippi 38329

October 26, 1987

Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

Baptist Memorial Hospital - Booneville, Inc. is within the HCFA predicted mortality ranges. Review of the HCFA mortality statistics revealed two (2) errors in the data in that two patients who died in another acute care facility were attributed to Baptist Memorial Hospital - Booneville.

All cases that expired in the hospital were admitted because of critical or terminal illnesses and death was unpreventable. An in depth review of their cases revealed that complications and comorbidities were predominant in these patients. No quality problems have been found in the thorough review of these cases.

Baptist Memorial Hospital - Booneville is a JCAH approved 121 bed hospital licensed and approved by the State of Mississippi. The Board of Trustees and the Medical Staff strive for optimal patient care through an active Quality Assurance Program. Mortality Review is one important aspect of this program. The Mortality Review is conducted by the Medical Staff in all deaths occurring in the hospital. No quality problems have been identified.

The goal of the Board of Trustees, Administration and Medical Staff is to provide optimal quality care to all patients who seek treatment at Baptist Memorial Hospital - Booneville.

Sincerely,

Ed Ledden

Ed Ledden
Administrator

EL/vh/408

Delta Medical Center
P.O. Box 5247/Crossroads Station/Greenville, MS 38701/(601)378-3783

September 25, 1987

ID# 250082

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P O Box 26684
Baltimore, Maryland 21207

Dear Sir:

I am in receipt of your Health Care Financing Administration selected mortality information. There are two areas of concern that I feel need to be addressed:

1) Patient Identification [redacted]A indicates that the patient was admitted and discharged the same date (3-27-86) and expired 3-29-86, when in fact the patient expired on the date of admission (3-27-86).

I do not want it to appear that we are discharging acute myocardial infarction patients prematurely.

2) Patients with principle diagnosis # 940XX-949XX are burn related patients (Severe Trauma). Your data classifies patient [redacted] and patient [redacted] as UN (all other conditions). I am not certain the significance of this classification, but I feel that these cases should be listed as Severe Trauma rather than All Other Conditions. This change would cause our actual mortality rate for the diagnostic category of Severe Trauma to increase from 16% to 18%, but will not affect our overall percentage which is calculated as 15%.

I appreciate your attention to these matters and, otherwise, have no problem with your report.

Respectfully,

William H. Sellers

William H. Sellers
Administrator

WHS/jw

Doctors Hospital
2969 UNIVERSITY DRIVE
JACKSON, MISSISSIPPI 39216
TELEPHONE 982-8321

October 26, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

I am writing in response to the recent information received by this hospital from your department. The data I received shows a total of 392 cases. According to my records we had 608 Medicare admissions in 1986. This would significantly affect the mortality rates.

I have calculated that 65% of the individual cases listed were in fact in high risk disease categories. Also, 40% of individuals did not expire in this facility.

The average age according to your list is 79 years.

All actual mortality rates for this facility are significantly within or below the predicted rates.

Sincerely,

Marsha Cannon, RRA

Marsha N. Cannon, R.R.A.
Director, Medical Records

H. C. WATKINS MEMORIAL HOSPITAL, INC.

605 South Archusa Avenue
Quitman, Mississippi 39355
Area Code 601-776-6925

October 5, 1987

Comments re: Hospital Mortality Information

The public should exercise caution in the interpretation of mortality data released by the Department of Health Care Financing Administration. Such data should not reflect adversely upon the quality of care provided by the H. C. Watkins Memorial Hospital or any other hospital. Various factors must be considered, i.e., age, sex, complications, severity of illness, prior hospitalizations, date of discharge and economic factors.

Medicare Provider Number: 250089214

HINDSCARE

Hinds General Hospital

1850 CHADWICK DR. • P.O. BOX 59001 • JACKSON, MS 39204-9001 • 601/376-1000

COMMENTS ON THE HCFA MORTALITY DATA
HINDS GENERAL HOSPITAL, JACKSON, MISSISSIPPI

The data used by HCFA indicates that a total of 289 Medicare patients admitted to Hinds General Hospital died within 30 days of admission. Of these, 234 died while still a patient of the hospital, while 55 (24%) died after discharge. Our own records indicate that 4403 Medicare admissions occurred in 1986, while HCFA records indicate only 2714 Medicare admissions occurred. Presumably the discrepancy reflects multiple admissions of individual beneficiaries. We have no way of verifying whether the number of Medicare patients treated at Hinds General Hospital reported in your figures is correct. Our own records also indicate that of the 234 Medicare patient who died within 30 days of admission while still an inpatient, 2 were still alive at the time of discharge. Two patients were not seen as patients at Hinds General Hospital. It is impossible to determine the percentage of the 55 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record.

Other discrepancies found in the data include information on two patients which appears to have all the same identifying information including the same HIC number but different names. These cases are believed to be the same patient. In three cases the date of death was incorrect. The date of death is actually the date of discharge.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

The 30 day post-admission mortality rate will result in the attribution to the hospital of deaths that are unrelated to the condition of the patient that was under treatment at the time of discharge or that resulted from the management of the patient at home or in a post-acute care facility. The hospital has no control of circumstances of the patient after their discharge, therefore, such deaths should not be attributed to the hospital statistics.

With the information available to the hospitals, the reliability of the model used is unknown, but appears to be quite limited. The model may accurately and reliably reflect the relationship between a small number of patient characteristics and the risk of death but it does not reliably predict hospital mortality rates. The model fails to consider a wide range of factors with a significant impact on mortality. Secondly, quality judgements can only be made after reviewing the information contained in a patient's medical record.

A corrected copy of the patient listing is included with these comments.

Ann Morris, Director of Medical Records.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

P.O. Box 1203
Jefferson Davis Boulevard
Natchez, Mississippi
39120
Telephone 601 446 7711

Humana Hospital
Natchez

October 23, 1987

Dr. William L. Roper
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

Thank you for the opportunity to comment on the hospital specific mortality data provided to us late last month. Humana Hospital-Natchez supports the Health Care Financing Administration's desire to educate those interested in Medicare quality issues. We recognize this program is early in its development stages. While its measurements are preliminary and rough, it is clearly an example of the type of quality measurements to come.

This information is helpful in our hospital's ongoing quality assurance program that includes regular and complete review of all admissions which result in patient mortality, regular morbidity and mortality reviews, quality assurance, utilization review, as well as complete outside review by the Joint Commission on Accreditation of Health Organizations and other outside review organizations.

Since these raw numbers reflect deaths which occurred in only a limited segment of a hospital's patient population (the elderly) and are not adjusted for severity of illness of other factors which may affect patient outcome, they must be considered in that context and should serve as only one of numerous indicators used to review the quality of services provided at an individual hospital. While this statistical data is useful in this format for professional evaluation, it is not beneficial for consumer use. As a result, consumers should be informed as to the limited scope of these numbers, and be cautioned about drawing any conclusions from the data about the quality of a particular hospital's services.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

As in all deaths occurring in hospitals, a complete internal review is necessary to determine the appropriateness of the outcome and may provide information to physicians and other medical providers about improvements which can be made in treating future patients. Thus, the use of raw mortality statistics is helpful to professionals in identifying patient trends and treatment outcomes. Additionally, they may assist health care consumers in understanding the extensive quality control systems in place in hospitals.

Our hospital's medical records, quality assurance, and our medical staff committee/members have reviewed the data. Since some deaths occurred outside the hospital, we have been unable to completely validate this data. Generally, we have found it to be consistent with our hospital records. Unfortunately, in most cases the number of patients in a particular category is too small to provide a valid statistical analysis. In addition, the predicted ranges are extremely broad and have been developed in such a complex and unverifiable manner, it would be inappropriate to consider them acceptable or unacceptable "standards".

Specifically, we have reviewed all categories and find that under the category of sepsis there was only one case and we feel this was not a statistically valid figure because there was only one case. We feel confident with this patients outcome due to the extremely poor condition she was in when she arrived at the hospital. Review by our Executive Committee, Utilization Review and Quality Assurance found no problems essentially because the patient's untimely admission to a health care facility.

We feel confident with this patients outcome due to the extremely poor condition she was in when she arrived at the hospital.

Sincerely,

Donald L. Kannady
Executive Director

H. Vann Craig, M.D.
Chief of Staff

:amk
Attachments

cc: Glenn Robinson, Patrick Stone

JASPER GENERAL HOSPITAL
P. O. BOX 527 • BAY SPRINGS, MISS. 39422
TELEPHONE (601) 764-2101

JACKIE M. BELDING
ADMINISTRATOR

September 29, 1987

William L. Roper, M.D.
Administrator
Department Of Health And Human Services
Washington, D.C. 20201

Re: Jasper General Hospital's Mortality Rate Within thirty Days Of Medicare Admission For 1986

Dear Dr. Roper:

We are in receipt of the above referenced Mortality Report, and I would like to amend it as follows:

The statistics were correct except for [redacted] who was admitted and expired on 03/09/86. And Patient ID [redacted], who was admitted and expired on 01/19/86.

Please publish in the report in relationship to the CA - Cancer - 9 Cases - 100% Mortality Rate - that these patients were admitted for "Terminal Care" having previously received diagnosis and Onocology Treatment in another hospital.

Of these thirty eight (38) deaths, five (5) patients were in a nursing home prior to admission to Jasper General. Three deaths occurred within the Swingbed setting, two (2) deaths at home, two (2) in another hospital, and one (1) in another nursing home.

Thank you for allowing us to have input prior to publication of this report.

Sincerely,

Jackie M. Belding

Jackie M. Belding,
Administratrix

JMB/bp

JONES COUNTY
COMMUNITY HOSPITAL

TERRY G. WHITTINGTON
ADMINISTRATOR

October 19, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

We, as Chairman of the Board of Trustees and Executive Director of Jones County Community Hospital, would like to commend and thank the Health Care Financing Administration for giving us the opportunity to review and comment upon the selected mortality information relating to our hospital that will be published by HCFA.

In order to help anyone unfamiliar with our hospital better understand the context in which your information was gathered, here is a description of our institution:

> Jones County Community Hospital is a 255-bed facility, providing both medical and surgical services for the acutely ill and injured. We serve a geographical area in which 13% of the people are 65 or over, and our hospital has a high complement of "critical care" beds. As a result of these two factors, we care for a great number of very sick patients with multiple medical problems of severe nature. We also provide very extensive outpatient services, including outpatient surgery, and maintain a very sophisticated, physician-staff emergency room, which is heavily utilized. Our medical staff consists of 65 physicians.

In regard to the report itself, we would note that it has been reviewed by the President of the Medical Staff and the Chairman of the Board of Trustees. Also, our administrative team, including Quality Assurance and Medical Records personnel, has examined the data and verified it against hospital records. We find the data to be basically accurate and agree with your supposition that the 16

PHONE (601) 649-4000 • P. O. BOX 607 • LAUREL, MISSISSIPPI 39440

categories reported do reflect the majority of illnesses for which Medicare recipients would be admitted as inpatients to any hospital, although it does concern us somewhat that some deaths reported for a given category could possibly be from causes unrelated to that category. We are utilizing your report by incorporating it as part of our ongoing Quality Assurance activities by which we constantly monitor the quality of care given to every patient who comes to our hospital.

Further, we would like to say that we believe that the changes made by your organization this year in how the information was gathered and categorized improved the usefulness of the report and has made this year's information more valuable than was last year's to both the general public and the health care community. We commend HCFA on its dedication to improving its analytical methods and hope that this effort will continue in the future until a method is developed that will take into account all the complexities involved in accurately measuring the quality of care in a given institution.

As for ways in which the report could be made more valuable, we offer the following suggestions for your consideration:

1. In dealing with deaths occurring within 30 days of admission, identify those which are unrelated to the admitting diagnosis.

2. Identify the percentage of deaths occurring during a hospital stay and the percentage occurring after the patients have been discharged.

3. Indicate categories of illness where inpatient utilization at a particular hospital is reduced due to utilization of outpatient services.

4. Have the report reflect information for each illness category for past years so that trends can be identified.

Again, we thank you for the opportunity to review and comment upon the information.

Sincerely,

Eric E. Lindstrom, M.D.
Chairman, Board of Trustees

Terry G. Whittington
Executive Director

/jh

WAYNE CARTLEDGE, PRES.
CLOYCE GIBSON, VICE PRES.
MARY LYNN CASTLE, SEC
CHARLIE LEE, JR.
L. C. WILLIAMS

KILMICHAEL HOSPITAL

PHONE 262-4311
KILMICHAEL, MISSISSIPPI

L. C. HENSON, M.D.
BARBARA S. MOORE, ADM.

October 23, 1987

Department of Health and Human Services
Health care Financiang Administration
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Sir:

I am writing in regard to Kilmichael Hospital, P. O. Box 188, Lamar Street, Kilmichael, MS 39747, # 250051, "Hospital Mortality Information", that we received from you.

In reviewing the information, we find our rate of mortality, in High Risk "Severe Acute Heart Disease", to be misleading. One of the patients left the hospital without the consent of his Physician, and he apparently expired at home. Another patients' death certificate, certified the immediate cause of death to have been a cerebrovascular accident. The other seven cases were patients aged 70 years to 96 years. Six of these patients had multiple, acute and chronic, secondary diagnoses.

In reviewing our "Hospital Mortality Rate", in High Risk "SE Sepsis", we found to have had only one patient admitted admitted with this diagnosis. This too, is misleading.

We had 567 Medicare admissions for our fiscal year ending, September 30, 1986, and we had 31 in-patients deaths. You reported us as having 12%, which was in the median range. According to our records on Medicare admissions, and deaths, our mortality rate is 5.47%. Some patients had more than one admission.

WE would appreciate your publishing these statistics, along with the ones that you have arrived at. Thank you.

Sincerely yours,

Barbara S. Moore

Barbara S. Moore
Administratrix
Kilmichael Hospital

BSM/sl

Kuhn Memorial State Hospital

1422 Martin Luther King Street
Vicksburg, MS 39180

Ralph L. Burroughs
Administrator

Walter E. Johnston, Jr., M.D.
Medical Director

(601) 636-8921

8 October 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

We are in support of anything that will upgrade the quality of care.

Thank you for your endeavors in this regard.

Sincerely,

RALPH L. BURROUGHS
Administrator

METHODIST HOSPITAL
OF MIDDLE MISSISSIPPI

#1 Bowling Green Street
Lexington, Mississippi 39095
601-834-1321

October 19, 1987

William L. Roper, M.D.
Administrator
Dept. Health & Human Services
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Administrator:

Please be advised that the following discrepancies appear in your report dated September 21, 1987:

Patient ID No.	Date of Discharge	Date of Death
[redacted]	3/08/86	3/08/86
	2/25/86	2/25/86
	4/22/86	4/22/86

It is also worth pointing out that of the thirty patients identified the average age is 79.5 years which we believe to be a significant factor. Please make these adjustments before you publish your 1986 mortality figures.

Sincerely,

Frank A. Jones

Frank A. Jones
Administrator

FAJ:tb

Attachment 1

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

1225 North State Street
Jackson, Mississippi 39201

Paul J. Pryor, F.A.C.H.A.
Executive Director

(601) 968-5130

October 23, 1987

MISSISSIPPI BAPTIST MEDICAL CENTER

William L. Roper, M. D., Administrator
Health Care Financing Administration
P. O. Box 26684
Baltimore, Maryland 21207

Re: Mississippi Baptist Medical Center Mortality
Information Comment
Provider #25-0102-033

Dear Dr. Roper:

Please consider the following as comment from Mississippi Baptist Medical Center on the mortality data to be released by HCFA.

> Mississippi Baptist Medical Center strongly feels that the methods employed by HCFA in the analysis of mortality data do not take all factors into account and could mislead the public on quality of care issues. Specifically, Mississippi Baptist Medical Center is a regional referral center in several areas of specialty including cardiovascular, orthopedics, neurology, urology, and particularly cancer treatment and tends to have patients with a higher severity of illness level than most other hospitals in the same area. Therefore, this data should not be used as a comparison of quality performance with other hospitals.

Sincerely,

Paul J. Pryor
Executive Director

mw

NESHOBA GENERAL
P.O. Box 648 • Philadelphia, Mississippi • (601) 656-2121

Hospital ID Number = 250043

October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Sir,

We have reviewed the mortality data relating to Medicare patients treated at Neshoba General Hospital. The data was based on the principal diagnosis and not necessarily the immediate cause of death.

All deaths occurring in this facility are reviewed by the Medical Staff. Data in itself, is not an indicator of quality of care.

Sincerely,

Tommy L. Dearing
Administrator
NESHOBA GENERAL HOSPITAL

TLD/sda

BOARD OF TRUSTEES: Robert H. Graham, Chairman • Horace Nicholson, Vice-Chairman • Duane Stokes • Kenneth Killen • O.V. Spears • Kenneth Wells • Welton Fortenberry

NORTH MISSISSIPPI
MEDICAL CENTER

October 22, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards and Quality Bureau
Post Office Box 26684
Baltimore, Maryland 21207

RE: The Mortality Data Comments of the Management and Medical Staff of North Mississippi Medical Center, Provider # 250004

Dear Dr. Roper:

As a provider of health care services to Medicare beneficiaries in Northeast Mississippi, North Mississippi Medical Center (NMMC) acknowledges and supports the Health Care Financing Administration's (HCFA) extensive quality review initiative. North Mississippi Medical Center has expended considerable effort in the past twelve to eighteen months to develop internal systems to monitor and evaluate the quality of care provided in the institution, and to address areas where quality of care issues exist. It is our belief that an appropriate assessment of a hospital's performance is a complex task and one that cannot be totally measured and reported by statistically oriented mortality data. We further believe that Medicare beneficiaries are entitled to know the limitations of the soon-to-be-published mortality data, to learn of institutional specific variables that affect mortality rates, and to have assistance from local health care providers in interpreting the meaning of the numbers provided.

A cursory look at the services NMMC provides and the communities it serves quickly reveals that NMMC is an atypical rural hospital serving patients with the most severe of illnesses. This fact is critical to acknowledge in light of the fact that HCFA's mortality data are based upon "average" patients. As the largest hospital in a non-metropolitan area in the United States, NMMC has been recognized by the Health Care Financing Administration (HCFA) as a rural regional referral center and as a disproportionate share provider, meaning that NMMC treats more indigent patients than the average hospital of the same size. NMMC's qualification as a disproportionate share provider in many ways attests to the high mix of patients with chronic degenerative diseases that can so dramatically impact an institution's mortality rate.

State-of-the-art technology and thirty-five medical and surgical specialties have helped NMMC evolve into a regional tertiary health care provider with clinical treatment programs in cardiology, oncology, neurology and neurosurgery, and infectious diseases, among others, that attract many of the most severely ill patients from a 60 mile radius. Specific programs such as an oncology program affiliated with the National Institute of Health, a hospice

830 South Gloster Street
Tupelo, Mississippi 38801
(601) 841-3000

program, a clinical affiliation with MD Anderson Tumor Hospital, a renal dialysis program, and active cardiovascular surgery and neurosurgery programs have an immeasurable impact on mortality data. Recent market research data indicates a significant preference of referral physicians for NMMC over other potential referral centers. One must acknowledge the potential adverse impact of being a referral center in a rural area on mortality data.

NMMC is committed to continuing to strive to monitor and report the findings of quality assessment activities to its management, medical staff, and governing body. The facility and its medical staff encourage HCFA to verify the validity and reliability of the data and to strive to give Medicare beneficiaries and others adequate direction in use of the data. NMMC wishes to see HCFA place more emphasis on measuring severity of illness, and documenting the impact varying degrees of severity can have on predicted mortality rates. NMMC is concerned that the public understand that this mortality data includes deaths (35) that did not occur in hospital. The data also includes 70 deaths that occurred in the hospital within 24 hours of admission. These 70 deaths are reflective of the tendency for NMMC to receive transfers and referrals of patients in the end stage of chronic degenerative disease processes when there is little, if any, hope for an outcome other than death. The mortality rates included in these two categories (24% of total reported deaths at NMMC) should not be heavily valued in considering hospital performance, since inpatient facilities do not control the quality of care provided before and after discharge. We would also like to point out to the public that due to multiple disease processes in many patients the cause of death may not have been directly related to the reason the patient was admitted.

As previously stated, NMMC believes that mortality rates alone cannot be used to measure hospital performance, but can be used to reflect areas worthy of further study. Since the Health Care Financing Administration itself "cannot and do not recommend the use of (this) information by itself to make judgements about the quality of care in an individual hospital, or to make comparisons among hospitals", the Medical Staff strongly encourages the public to seek the assistance of local health care providers in interpreting mortality data and to request additional information on quality of care indicators where concerns exist.

In future efforts to supply the public with quality of care data, NMMC requests that HCFA consider supplementing mortality data with other quality indicators. For instance, survival rates for various types of malignancies could be reported rather than the death rate of all malignancies. Nosocomial infection rates, surgical complications, and other indicators will be more valuable to the public, as well as to health care providers, than averaged mortality rates.

In closing, the management and Medical Staff of NMMC once again commend HCFA for its initial efforts to develop quality measurements and its commitment to develop, refine, and perfect other measures of quality.

Sincerely,

John D. Hicks
President

Hugh Moore, M.D., Chairman
Quality Assessment Committee

NORTHWEST MISSISSIPPI REGIONAL MEDICAL CENTER
POST OFFICE BOX 1218 • CLARKSDALE, MS 38614 • (601) 627-3211

Clifford L. Johnson, Jr., FACHE
Executive Director

October 27, 1987

Health Care Financing Administration
Department of Health and Human Services
Attention Harvey Brook, Room 2-D-2
Meadows East Building
6300 Security Blvd.
Baltimore MD 21207
(301) 597-2752

RE: HSQ-148-GNC

Gentlemen:

This letter is in response to the proposed procedure and methodology for publication of mortality statistics on this and every other hospital in the country. We appreciate the opportunity to comment on this action that is being taken by the Healthcare Finance Administration.

The information that was sent to us by your office has been studied at length, and I submit the following information subsequent to that investigation.

We fell within the range of predicted mortality rates in all diagnostic categories.

All patients with age less than 70 (except 3) did have complications and co-morbidity diagnoses. Two patients of the three just cited had cancer, and one had a myocardial infarction.

There were 25 patients with principal diagnosis of cancer. We also had 24 others with cancer as a secondary diagnosis, and these patients were admitted with complications caused by the cancer.

AGE GROUPS:

Less than 1 year	0
1 - 19 years	0
20 - 44 years	0
45 - 64 years	12
65 - 74 years	51
75 - 84 years	79
85 - 94 years	52
95+ years	7

SEX:

Male	89
Female	112

RACE:

White	88
Black	113

It is my feeling that the public will not really understand these statistics being presented and the reasons why. This could cause quite a bit of confusion. I doubt that the publication of the mortality rates will be an improvement inpatient care.

Also, the mortality rate at a particular hospital - especially one such as ours with such a high rate of elderly patients - may tend to show more deaths and could create some needless concern from a public standpoint in that a comparison might be made with hospitals that treat younger patients. Characteristics affecting health and probability of death will vary among the patient populations served by individual hospitals.

As I said earlier, this hospital fell within the range of predicted mortality rates in all diagnostic categories.

If I can help you in any way or provide additional information, please let me know.

Sincerely,

NORTHWEST MISSISSIPPI REGIONAL MEDICAL CENTER

Clifford L. Johnson, Jr., FACHE
Executive Director

CLJjr:cj

Rankin General HOSPITAL
"Where Caring Has Many Meanings"

October 15, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
P. O. Box 26684
Baltimore, Maryland 21207

RE: 1986, Release of Mortality Rates
Rankin General Hospital #250086

Dear. Dr. Roper:

I am writing to you in response to the recently released 1986 Mortality Rates. We would like to report our own analysis of these results.

The data used by HCFA indicated that a total of 84 Medicare patients admitted to Rankin General died within 30 days of admission. We could only verify that 82 of these were actually admitted to Rankin General. 10 deaths ocurred outside of Rankin General; two of these were Dead on Arrivals brought to our Emergency Room. One name that HCFA counted twice the State of Mississippi could not even verify a death certificate on this person. In addition, the state could not verify death certificates on two other deaths.

Even though Rankin General fell within the fiftieth percentile of the predicted rates, we feel the above errors would further reduce our percentile.

Sincerely,

Thomas Wiman
Administrator

TW/dr

350 CROSSGATES BOULEVARD • BRANDON, MISSISSISSIPPI 39042 • (601) 825-2811

LACKEY MEMORIAL HOSPITAL

Virginia Mangum
ADMINISTRATOR

October 26, 1987

Re: Mortality Data
25-0029

William L. Roper, M. D.
Administrator
Healthcare Financing Administration
Health Standards & Quality Review
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

The mortality data sheet has been reviewed with the information being consistant with our records; however, after review there are no findings which reflect negatively on the quality of care received in our facility.

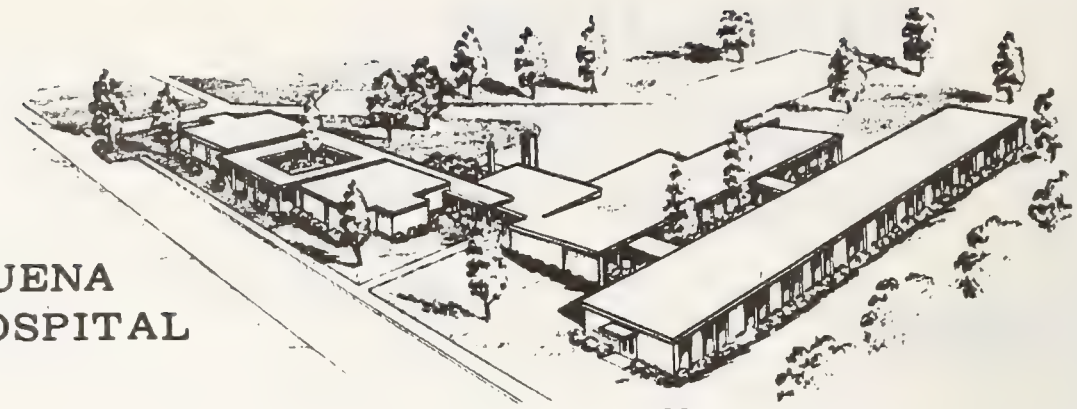
Sincerely,

Virginia Mangum
Administrator

vm

POST OFFICE BOX 428 FOREST, MISSISSIPPI 39074 (601) 469-4151

MS 98



SHARKEY-ISSAQUENA
Community HOSPITAL

108 SOUTH 4th STREET • ROLLING FORK, MISSISSIPPI 39159

K. C. MATHESON
ADMINISTRATOR

PHONE 873-4396

October 22, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services

SUBJECT: HCFA MORTALITY DATA RELEASE
HOSPITAL I.D. # 250079

Dear Dr. Roper:

Thirty patients are listed in your memo of September 21, 1987. Sharkey-Issaquena Community Hospital Medical Records personnel could account for only twenty-six.

Transfer payments consume the largest share of personal income for the South Delta area in which Sharkey-Issaquena Community Hospital serves. Per Capita Income for Sharkey County in 1980 was $6,396.00 which says very simply, employment is not available in the area . With statistics of this nature the younger generation namely high school and college graduates cannot afford to remain in the area, therefore, the area is becoming a haven for the elderly as this class of citizens have no place to go.

A sixty-bed nursing home is located in the community which serves several counties. Of the twenty-six listed as deaths twelve came from the local nursing home with five of these dying within forty-eight hours of admission.

All of Sharkey-Issaquena Community Hospital deaths are well within HCFA's range of predicted mortality rates as follows:

DIAGNOSTIC CATEGORY	RATIO DEATH TO CASES	ACTUAL MORALITY RATE	RANGE PREDICTED MORALITY RATES
1. CA	2/5	40%	6 to 75%
2. CE	2/3	67%	4 to 84%
3. GI	1/21	4%	0 to 28%
4. HM	3/12	25%	8 to 54%
5. HS	6/9	67%	14 to 72%
6. ME	2/15	13%	7 to 49%
7. PN	6/28	15%	8 to 35%
8. RN	1/3	33%	2 1o 83%
9. UN	3		

The hospital medical staff reviewed all the patients and advised that the quality of care was appropriate. Please advise should additional information be needed.

K. C. Matheson
Administrator

KCM:gb

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EXECUTIVE DIRECTOR
ANN LESTER MOORE

October 19, 1977

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Medicare Provider #: 250075

Dear Dr. Roper:

Regarding the December publication of selected mortality information for Tunica County Hospital, Inc., the hospital finds that your records are accurate regarding patient admission to our facility.

In reviewing your mortality statistics, the hospital is pleased to find that the actual mortality rates for all diagnostic categories fall well within the range of predicted mortality rates.

It would appear that those diagnostic categories for which the hospital has the highest mortality rates are indicative of the type of patient that is most frequently treated at the hospital. As a small hospital in a rural community, our patient mix is comprised heavily of older patients with low socioeconomic backgrounds and a great many of them suffer from the end stages of cancer and heart disease.

Thank you for giving us the opportunity to comment on the mortality statistics of Tunica County Hospital, Inc.

Sincerely,

Robert R. Clark
Administrator
Tunica County Hospital, Inc.

RRC/rt

UNION COUNTY GENERAL HOSPITAL

Highway 30 West
New Albany, Mississippi 38652

October 26, 1987

Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

The Health Care Financing Administration mortality statistics have been reviewed and evaluated for their accuracy. Union County General Hospital is a 153 bed, county-owned acute care facility that is accredited by the State of Mississippi and the Joint Commission on Accreditation of Health Care Organizations to provide quality patient care to the residents of the county. The county has only one nursing home, therefore, the hospital cooperates in providing medical care to those residents as well.

In 1986, Union County General Hospital admitted and treated 2,166 Medicare patients. According to the HCFA mortality statistics, our facility was well within the predicted range of death for all fifteen categories as well as the overall mortality rate. Of those patients who expired in the hospital, 27% (32 patients) died within 24 hours of admission and 17% (20 patients) died within 48 hours of admission which indicates a higher degree of illness severity, the presence of comorbid conditions and complications.

As required by the State of Mississippi and the Joint Commission on Accreditation of Health Care Organizations, the hospital performs two vital functions in the assessment of the quality and appropriateness of patient care. These two functions are a quality assurance program and a utilization review program which provides a mechanism for the systematic review of all aspects of patient care through well-defined indicators that are developed and approved by the Medical Staff.

Sincerely,

John Tompkins

John Tompkins
Administrator

JT/vh/394

WALTHALL COUNTY GENERAL HOSPITAL

100 HOSPITAL DRIVE TYLERTOWN, MISS. 39667
PHONE: 601-876-2122

October 20, 1987

JIMMY GRAVES, ADMINISTRATOR

Dr. William L. Roper
Administrator
Department of Health & Human Services
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Walthall County General Hospital appreciates the opportunity to comment on our facility's mortality data prior to its final publication in the Federal Register.

Appropriate medical staff committees in our hospital have reviewed the data in aggregate and also reviewed the individual patient records. Your individual patient listing includes an error showing an incorrect date of death of one patient.

During calendar year 1986, Walthall County General Hospital admitted 934 Medicare Patients. Your mortality data table indicates that 38 of those patients died. This places our hospital's Medicare death rate at 4.1%. Twelve of the patients reported in your study died after discharge from the hospital.

The Diagnostic Category CA demonstrates our hospital to have an actual mortality rate higher than the predicted rate. Seven of nine cases in that Diagnostic Category expired within thirty (30) days of admission. One of those patients died after discharge. Careful review of those seven cases indicates that the patients were all long-term cancer patients who had multiple admissions, not only to this hospital, but to larger referral facilities for treatment. At the time of their last admission to our hospital, they were known to be in the terminal stage of their illness. As stated earlier, each of those cases has been reviewed by appropriate medical staff committees and no quality problems have been identified.

We believe that it is important for the public to understand that this data release, in and of itself, is not an appropriate measure of hospital peformance. It is impossible to compare hospitals on the basis of these numbers alone. Walthall County General Hospital is a small county hospital serving the needs of a rural community. Our Medical Staff and employees take great pride in the work that we do.

Thank you for the opportunity to comment on this data prior to its final release.

Sincerely,

Jimmy Graves
Administrator

JG:lc

Missouri

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ALEXIAN BROS HOSP SAINT LOUIS MO 63118	MO-13 *	1758	10	9-16	117	25	19-39	52	23	17-42	44	9	8-33	105	14	14-31	67	43	28-52	71	13	8-30	126	25	14-31
ARCADIA VALLEY HOSP PILOT KNOB MO 63663	MO-14 *	337	11	10-20	9	67	9-65	18	28	12-53	5	20	0-69	24	25	11-45	18	22	18-60	11	18	4-51	67	12	11-31
AUDRAIN MED CTR MEXICO MO 65265	MO-15	1478	10	9-16	72	17	17-40	60	25	21-45	28	14	8-40	62	16	14-36	33	64	27-60	23	13	8-43	188	21	14-28
AURORA COMM HOSP AURORA MO 65605	MO-16 *	566	13	11-19	24	38	17-55	35	23	15-44	8	38	1-55	35	20	13-41	24	38	24-63	20	15	6-43	66	17	13-35
BAPTIST MED CTR KANSAS CITY MO 64131	MO-17	2808	13	9-16	229	22	18-34	94	20	20-39	69	19	9-30	136	29	17-32	67	39	30-55	71	15	9-31	231	26	16-29
BARNES HOSP SAINT LOUIS MO 63110	MO-18 *	7863	8	7-13	677	15	19-32	169	20	21-36	150	15	13-30	268	15	18-29	218	32	32-47	116	25	11-30	389	14	14-25
BARTON CO MEM HOSP LAMAR MO 64759	MO-19 *	374	13	9-18	9	22	5-59	18	56	16-58	8	63	9-68	25	28	12-45	13	46	17-66	6	17	2-64	44	9	9-34
BATES COUNTY MEM HOSP BUTLER MO 64730	MO-20 *	494	14	10-19	30	37	12-45	21	24	16-55	5	20	2-69	32	22	13-43	17	41	20-64	[illegible]	0	5-62	81	23	16-36
BETHESDA GENERAL HOSP SAINT LOUIS MO 63110	MO-21 *	583	14	8-16	18	28	12-53	18	33	12-52	16	25	5-44	21	48	10-45	8	50	15-75	29	21	11-44	54	30	15-39
BONNE TERRE HOSP BONNE TERRE MO 63628	MO-22 *	405	17	9-18	21	52	16-56	14	21	13-59	16	31	4-43	28	25	11-42	14	57	17-65	6	0	1-63	39	23	9-35
BOONE HOSP CTR COLUMBIA MO 65201	MO-23 *	2331	9	8-15	147	24	16-34	83	18	20-41	28	21	7-38	92	18	16-34	111	27	27-46	19	16	3-39	142	17	14-30
BOTHWELL REGIONAL HEALTH C SEDALIA MO 65301	MO-24 *	2076	13	9-16	138	29	17-36	86	33	19-39	39	15	6-32	110	12	16-32	76	47	28-51	41	15	5-31	261	20	14-26
BREECH MED CTR LEBANON MO 65536	MO-25 *	618	12	9-17	30	47	12-45	29	28	16-49	11	0	10-61	42	17	11-36	18	61	21-64	18	0	4-40	96	14	13-31
CALLAWAY MEMORIAL HOSP FULTON MO 65251	MO-26 *	299	17	11-21	14	29	7-51	18	44	15-57	7	29	3-61	21	19	8-43	20	55	22-64	8	13	3-57	40	30	12-39
CAMERON COMM HOSP CAMERON MO 64429	MO-27	412	19	10-19	18	72	19-63	9	56	9-64	15	27	5-45	13	31	8-53	16	56	20-66	11	9	3-50	40	33	13-41
CARROLL COUNTY MEM HOSP CARROLLTON MO 64633	MO-28	182	17	10-22	2	0	1-89	9	44	12-68	4	0	1-74	13	23	10-56	7	57	13-75	7	14	2-59	30	17	11-42
CASS MED CTR HARRISONVILLE MO 64701	MO-29 *	377	13	10-19	20	35	10-48	27	37	16-50	9	11	3-54	18	6	8-46	11	55	16-69	9	11	2-53	55	13	12-35
CEDAR CO MEM HOSP EL DORADO SPRINGS MO 64744	MO-30 *	290	14	11-22	11	73	19-73	17	18	15-58	7	29	5-65	24	17	10-44	10	50	15-69	6	0	3-65	58	17	11-34
CENTRAL MED CTR INC SAINT LOUIS MO 63115	MO-31 *	598	11	8-15	22	18	10-47	21	29	13-51	14	14	3-43	66	17	11-31	15	27	15-61	18	17	9-49	53	23	10-32
CHAFFEE GENERAL HOSP CHAFFEE MO 63740	MO-32 *	135	16	7-20	6	50	1-63	5	40	6-75	1	0	0-100	9	33	7-61	8	88	15-75	1	0	0-99	28	11	7-36
CHINN JANE MEM HOSP WEBB CITY MO 64870	MO-33 *	43	7	7-29	.	.		2	50	2-90	.	.		4	0	5-78	.	.		2	0	0-92	17	12	6-45
CHRISTIAN HOSP NW FLORISSANT MO 63031	MO-34 *	657	11	6-14	16	0	5-44	4	50	3-76	6	33	2-63	31	19	9-38	38	39	23-54	7	14	4-62	60	23	10-32
CHRISTIAN HOSP-NE SAINT LOUIS MO 63136	MO-35 *	4442	12	10-16	296	22	18-33	168	23	22-37	85	9	11-31	234	23	17-30	185	43	31-47	97	15	11-32	302	24	17-29
CITIZENS MEMORIAL HOSP BOLIVAR MO 65613	MO-36 *	644	11	9-17	16	31	12-56	31	19	19-51	22	14	7-41	42	12	13-39	24	46	25-64	13	31	8-54	46	15	9-33
COLUMBIA REG HOSP COLUMBIA MO 65201	MO-37	1914	5	6-13	145	17	17-35	64	11	19-42	25	12	6-37	38	16	11-38	19	21	19-61	39	13	11-41	95	23	15-34
COOPER CO MEM HOSP BOONVILLE MO 65233	MO-38	361	16	9-18	7	29	3-61	11	45	10-60	10	30	6-58	13	8	5-49	21	43	23-63	10	20	6-57	33	30	11-40

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ALEXIAN BROS HOSP SAINT LOUIS MO 63118	9	33	7-63	33	27	22-56	70	4	4-20	3	0	0-100	133	2	2-10	72	3	1-14	9	0	0-98	123	3	2-10	113	2	0-7
ARCADIA VALLEY HOSP PILOT KNOB MO 63663	3	0	2-82	5	40	13-84	8	0	1-53	.	.		41	5	2-21	4	0	0-85	2	0	0-100	35	0	1-19	14	0	0-50
AUDRAIN MED CTR MEXICO MO 65265	14	21	6-54	6	0	7-72	45	4	4-23	20	0	0-64	181	6	3-11	58	5	2-17	17	0	0-89	103	4	2-12	127	0	0-7
AURORA COMM HOSP AURORA MO 65605	10	20	8-64	9	44	13-70	3	0	0-85	.	.		71	4	2-15	18	6	1-32	2	0	0-100	44	2	1-17	29	0	0-21
BAPTIST MED CTR KANSAS CITY MO 64131	21	19	9-51	39	46	22-55	91	8	5-20	155	2	0-5	226	8	4-11	181	7	2-12	16	0	0-79	146	3	2-10	165	2	0-6
BARNES HOSP SAINT LOUIS MO 63110	83	10	9-37	26	54	25-64	86	8	3-17	694	0	0-2	470	6	3-9	269	3	1-10	67	4	0-11	673	6	4-8	509	1	1-4
BARTON CO MEM HOSP LAMAR MO 64759	4	25	2-76	1	0	0-97	6	17	1-62	.	.		58	0	1-15	18	6	1-32	1	0	0-100	34	6	2-22	13	0	0-41
BATES COUNTY MEM HOSP BUTLER MO 64730	11	18	8-61	1	0	0-97	8	25	0-54	2	0	0-100	37	11	1-20	19	0	1-32	1	0	0-100	52	4	1-15	20	0	0-34
BETHESDA GENERAL HOSP SAINT LOUIS MO 63110	6	33	6-72	10	40	12-67	23	13	4-34	92	0	0-9	54	9	2-17	32	9	1-23	4	25	0-99	38	0	1-19	11	0	0-69
BONNE TERRE HOSP BONNE TERRE MO 63628	12	42	9-60	5	80	15-86	8	13	1-53	1	0	0-100	42	7	1-17	23	0	0-28	1	0	0-100	44	2	1-17	13	0	0-64
BOONE HOSP CTR COLUMBIA MO 65201	36	25	15-51	11	55	20-74	47	9	3-21	13	0	0-97	189	3	3-10	101	3	1-12	29	0	0-50	376	2	3-8	120	3	0-7
BOTHWELL REGIONAL HEALTH C SEDALIA MO 65301	29	21	8-45	13	31	15-65	68	3	3-18	13	0	0-89	205	5	2-8	119	8	3-14	18	0	0-72	134	7	3-11	117	3	0-7
BREECH MED CTR LEBANON MO 65536	7	43	3-65	4	75	6-81	13	0	2-41	.	.		75	1	1-13	31	3	1-23	11	0	0-99	60	2	1-14	20	5	0-29
CALLAWAY MEMORIAL HOSP FULTON MO 65251	6	33	11-79	5	20	12-82	4	0	0-84	3	0	0-100	29	3	2-25	12	0	0-42	6	0	0-100	27	4	1-22	13	0	0-52
CAMERON COMM HOSP CAMERON MO 64429	4	75	10-86	5	20	12-82	16	6	2-36	1	0	0-100	51	6	1-16	28	14	4-30	1	0	0-100	38	13	1-19	12	0	0-61
CARROLL COUNTY MEM HOSP CARROLLTON MO 64633	.	.		3	33	5-86	3	67	1-81	.	.		11	0	1-44	5	20	2-68	.	.		23	4	1-26	6	0	0-94
CASS MED CTR HARRISONVILLE MO 64701	11	36	8-61	2	0	5-93	14	7	1-39	1	0	0-100	38	0	1-18	15	7	1-37	1	0	0-100	27	0	1-23	13	0	0-51
CEDAR CO MEM HOSP EL DORADO SPRINGS MO 64744	5	20	4-73	2	50	3-91	11	0	1-45	.	.		32	6	1-21	6	0	1-62	1	0	0-100	18	11	1-32	17	6	0-33
CENTRAL MED CTR INC SAINT LOUIS MO 63115	7	14	7-70	4	50	5-79	1	0	0-99	.	.		62	6	2-16	24	0	1-27	3	0	0-100	78	1	1-11	13	0	0-85
CHAFFEE GENERAL HOSP CHAFFEE MO 63740	.	.		1	0	0-97	1	0	0-99	.	.		12	8	0-44	12	0	0-43	1	0	0-100	4	0	0-89	8	0	0-94
CHINN JANE MEM HOSP WEBB CITY MO 64870	.	.		.	.		.	.		1	0	0-100	4	0	0-87	2	0	0-94	.	.		1	0	0-98		.	
CHRISTIAN HOSP NW FLORISSANT MO 63031	1	100	0-97	10	40	14-69	.	.		30	0	0-63	15	7	1-36	9	11	1-50	31	0	0-46	43	7	2-18	1	0	0-100
CHRISTIAN HOSP-NE SAINT LOUIS MO 63136	30	27	14-52	57	32	27-55	158	6	5-16	7	0	0-100	455	6	3-9	258	5	3-12	21	0	0-89	455	6	3-7	227	2	1-5
CITIZENS MEMORIAL HOSP BOLIVAR MO 65613	14	14	4-51	7	57	9-71	17	12	2-35	.	.		105	0	2-13	18	22	1-32	10	0	0-96	55	5	1-14	27	0	0-23
COLUMBIA REG HOSP COLUMBIA MO 65201	8	50	10-71	13	38	20-71	42	5	2-21	143	0	0-5	136	2	2-10	68	0	1-15	26	0	0-79	79	3	2-13	426	1	0-4
COOPER CO MEM HOSP BOONVILLE MO 65233	2	50	6-94	1	100	3-99	2	50	0-90	.	.		26	4	1-24	22	18	2-30	6	0	0-100	30	10	1-21	13	15	0-64

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
COX MEDICAL CTR SPRINGFIELD MO 65802	MO-39 *	5043	10	9-15	374	20	18-32	162	31	21-37	87	11	8-27	230	19	18-30	206	42	31-47	86	22	12-34	334	19	15-27
DADE CO MEM HOSP LOCKWOOD MO 65682	MO-40 *	156	16	9-21	4	50	10-86	8	38	8-65	4	25	1-74	9	33	6-59	5	60	13-83	1	0	0-100	21	24	9-44
DEACONESS HOSP SAINT LOUIS MO 63139	MO-41 *	4617	13	10-16	418	27	20-34	160	37	22-38	132	14	11-28	281	24	17-29	140	44	31-49	132	17	10-28	352	22	16-27
DEPAUL COMM HLTH CTR BRIDGETON MO 63044	MO-42	2939	9	7-13	186	23	17-34	71	18	17-39	50	18	11-36	129	22	15-30	91	29	27-49	60	12	7-30	181	17	14-28
DEPT OF COMMUNITY HEALTH CLAYTON MO 63105	MO-43 *	19	5	1-32	1	100	0-97	1	0	0-97	.	.		2	0	0-90	.	.		2	0	0-94	.	.	
DEXTER MEM HOSP DEXTER MO 63841	MO-44 *	396	18	12-21	22	50	12-49	18	22	13-54	9	22	2-52	35	23	13-41	35	46	24-56	11	9	4-52	48	21	12-36
DOCTORS REG MED CTR POPLAR BLUFF MO 63901	MO-45	1558	13	9-16	119	24	17-36	61	41	17-40	28	32	8-39	81	23	15-34	68	35	29-54	23	13	6-41	172	22	13-28
ELLETT MEM HOSP APPLETON CITY MO 64724	MO-46 *	171	10	9-22	8	38	14-74	7	14	12-74	2	50	1-89	8	0	6-63	2	50	5-93	2	0	0-90	43	12	10-35
EXCELSIOR SPRINGS CITY HOS EXCELSIOR SPRINGS MO 64024	MO-47	297	16	11-21	16	19	7-49	14	7	10-55	13	0	6-50	14	29	7-50	14	29	18-65	12	17	4-50	50	34	14-39
FAIRFAX COMM HOSP FAIRFAX MO 64446	MO-48 *	447	15	10-18	26	31	9-43	16	25	11-54	9	11	3-54	44	20	13-38	19	53	21-64	17	29	8-48	57	18	10-32
FAITH HOSP SAINT LOUIS MO 63141	MO-49	287	10	7-16	32	25	12-43	11	18	9-59	5	20	3-71	21	14	8-43	8	63	14-73	1	0	0-97	23	13	7-40
FARMINGTON REGIONAL MEDICA FARMINGTON MO 63640	MO-50	780	13	11-19	46	26	16-43	35	29	20-51	18	17	6-44	54	24	15-38	33	39	24-57	19	11	6-44	127	17	14-30
FISCHEL ELLIS STATE CANCER COLUMBIA MO 65201	MO-51	188	18	15-28	60	32	22-47	1	100	0-97	3	33	3-83	2	0	1-89	1	0	1-97	9	0	12-69	11	36	15-67
FITZGIBBON JOHN MEM HOSP MARSHALL MO 65340	MO-52 *	566	13	13-21	29	24	12-44	43	14	19-47	26	8	5-36	31	19	12-43	55	25	29-55	11	9	4-51	82	24	15-35
FREEMAN HOSP JOPLIN MO 64801	MO-53 *	953	9	7-14	83	16	12-33	23	39	11-46	40	20	8-34	49	14	13-36	18	61	21-65	22	0	6-41	49	20	10-34
GENTRY CO MEM HOSP ALBANY MO 64402	MO-54 *	340	17	11-21	12	50	16-67	19	47	19-61	7	43	4-62	36	33	12-40	13	31	16-65	9	11	3-55	54	22	12-36
GOLDEN VALLEY MEM CLINTON MO 64735	MO-55 *	997	13	10-17	51	31	17-44	46	24	16-43	41	12	6-30	64	28	14-36	46	41	25-53	30	13	6-36	132	14	13-29
GRIM-SMITH HOSP AND CLINIC KIRKSVILLE MO 63501	MO-56 *	693	14	10-18	39	28	15-45	27	22	15-48	22	9	6-39	40	35	12-39	35	40	25-57	21	10	5-40	96	22	11-29
HEARTLAND EAST HOSPITAL SAINT JOSEPH MO 64501	MO-57	2549	11	10-16	209	22	19-35	79	27	21-42	39	13	9-35	136	18	16-31	125	30	29-48	61	15	9-33	241	17	15-28
HEARTLAND WEST HOSPITAL SAINT JOSEPH MO 64501	MO-58	1879	13	9-16	161	19	16-34	45	42	18-45	22	23	5-38	88	27	15-34	57	33	27-53	84	17	10-31	172	22	14-28
HEDRICK MED CTR CHILLICOTHE MO 64601	MO-59 *	463	14	10-19	21	29	10-47	35	20	17-48	12	17	3-48	37	27	11-38	25	44	22-59	15	0	3-43	56	18	10-32
HERMANN AREA DIST HOSP HERMANN MO 65041	MO-60 *	294	15	10-20	19	26	9-49	16	44	12-54	10	0	2-49	23	22	9-43	15	33	19-65	5	40	5-73	47	26	12-37
INCARNATE WORD HOSP SAINT LOUIS MO 63104	MO-61	2219	13	9-15	154	31	18-36	67	36	18-40	47	23	10-35	127	21	16-31	68	51	29-53	63	17	10-33	174	23	14-28
INDEPENDENCE REGIONAL HEAL INDEPENDENCE MO 64050	MO-62 *	2140	11	9-15	162	23	17-35	81	21	22-43	36	28	9-37	107	25	15-31	71	28	29-52	33	15	8-37	175	23	11-25
JEFFERSON MEM HOSP CRYSTAL CITY MO 63019	MO-63 *	1314	11	11-18	66	27	17-41	53	26	17-42	39	10	9-37	70	27	14-35	60	38	27-53	33	18	8-39	168	15	16-31
JEWISH HOSP OF ST LOUIS SAINT LOUIS MO 63110	MO-64 *	4320	10	10-16	397	20	19-33	95	19	19-38	114	19	12-31	221	14	18-31	154	25	32-50	113	27	14-34	254	19	15-28

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
COX MEDICAL CTR SPRINGFIELD MO 65802	41	17	12-46	41	44	25-57	147	7	5-16	66	0	0-14	493	5	3-8	191	3	2-11	44	0	0-29	485	4	3-7	348	1	1-4
DADE CO MEM HOSP LOCKWOOD MO 65682	3	100	9-91	1	0	0-97	.	.		.	.		15	7	1-35	13	8	2-41	.	.		11	9	1-44	8	0	0-74
DEACONESS HOSP SAINT LOUIS MO 63139	56	27	12-44	58	36	22-50	95	8	4-17	95	1	0-11	453	6	3-8	172	5	1-11	33	0	0-35	327	5	3-8	234	3	1-5
DEPAUL COMM HLTH CTR BRIDGETON MO 63044	13	23	7-56	12	50	18-70	89	8	3-16	10	0	0-95	273	5	2-9	123	12	3-14	18	0	0-95	240	6	2-8	339	0	0-4
DEPT OF COMMUNITY HEALTH CLAYTON MO 63105	.	.		.	.		.	.		.	.		2	0	0-99	.	.		.	.		1	0	0-100	.	.	
DEXTER MEM HOSP DEXTER MO 63841	5	0	6-76	3	33	5-86	14	14	1-38	.	.		39	10	2-20	3	0	0-85	4	0	0-100	42	10	1-18	.	.	
DOCTORS REG MED CTR POPLAR BLUFF MO 63901	22	18	7-47	20	55	20-63	49	4	2-20	25	0	0-75	135	4	2-11	146	3	1-11	36	0	0-83	104	4	2-11	23	0	0-39
ELLETT MEM HOSP APPLETON CITY MO 64724	.	.		2	0	1-89	3	0	0-82	.	.		12	0	0-42	6	17	1-63	.	.		7	0	0-62	13	0	0-56
EXCELSIOR SPRINGS CITY HOS EXCELSIOR SPRINGS MO 64024	5	60	6-76	3	0	4-84	12	8	2-44	.	.		25	4	1-24	14	0	0-39	2	0	0-100	21	5	1-27	6	0	0-96
FAIRFAX COMM HOSP FAIRFAX MO 64446	6	50	3-68	1	100	3-99	18	0	2-34	.	.		41	7	1-17	15	7	2-37	6	0	0-100	34	12	1-20	20	0	0-30
FAITH HOSP SAINT LOUIS MO 63141	2	50	4-93	.	.		4	0	0-80	.	.		43	2	1-17	14	0	0-43	4	0	0-100	16	0	0-35	26	0	0-42
FARMINGTON REGIONAL MEDICA FARMINGTON MO 63640	12	25	12-64	9	11	8-63	21	19	2-32	2	0	0-100	73	5	2-14	11	18	1-45	8	0	0-100	87	5	2-13	29	0	0-24
FISCHEL ELLIS STATE CANCER COLUMBIA MO 65201	1	100	1-97	2	0	6-95	.	.		.	.		6	0	0-84	8	13	1-53	3	0	0-100	2	0	0-93	3	33	1-81
FITZGIBBON JOHN MEM HOSP MARSHALL MO 65340	10	30	16-73	1	0	0-97	15	7	2-39	.	.		55	7	2-16	19	0	0-34	7	0	0-100	48	6	1-16	16	0	0-52
FREEMAN HOSP JOPLIN MO 64801	9	0	4-60	9	33	13-70	19	5	1-32	20	0	0-89	123	2	2-11	79	1	2-14	28	0	0-65	58	5	1-14	43	2	0-18
GENTRY CO MEM HOSP ALBANY MO 64402	4	50	10-86	2	50	3-92	2	0	0-96	.	.		45	4	1-16	14	0	1-38	3	0	0-99	24	4	2-27	14	7	0-57
GOLDEN VALLEY MEM CLINTON MO 64735	3	67	2-83	4	25	4-78	35	17	3-26	2	0	0-100	130	5	3-12	63	10	1-16	13	0	0-94	79	9	1-12	36	3	0-21
GRIM-SMITH HOSP AND CLINIC KIRKSVILLE MO 63501	11	27	14-69	5	20	12-83	22	14	2-31	1	0	0-100	70	7	2-14	34	0	1-21	10	0	0-86	54	4	1-15	47	0	0-15
HEARTLAND EAST HOSPITAL SAINT JOSEPH MO 64501	14	29	6-53	19	58	21-65	101	9	5-19	2	0	0-100	328	4	3-9	140	3	2-12	19	0	0-87	119	6	2-11	252	2	1-5
HEARTLAND WEST HOSPITAL SAINT JOSEPH MO 64501	17	35	11-57	22	36	23-64	66	18	6-23	9	0	0-99	167	5	2-10	107	10	2-14	19	5	0-86	100	4	2-12	88	1	1-9
HEDRICK MED CTR CHILLICOTHE MO 64601	9	22	8-65	1	0	1-97	10	0	1-47	11	0	0-91	53	6	1-15	7	29	0-59	3	0	0-100	38	3	1-18	8	13	0-95
HERMANN AREA DIST HOSP HERMANN MO 65041	3	33	2-83	3	33	3-83	6	17	1-62	.	.		37	0	1-20	10	20	0-49	1	0	0-100	17	6	0-32	15	0	0-46
INCARNATE WORD HOSP SAINT LOUIS MO 63104	20	40	12-55	23	30	18-58	67	10	4-19	21	0	0-84	234	5	2-9	90	2	1-13	22	0	0-43	171	4	2-10	204	3	0-5
INDEPENDENCE REGIONAL HEAL INDEPENDENCE MO 64050	19	11	8-51	30	40	21-58	89	17	5-19	18	0	0-93	198	4	3-10	117	3	1-12	18	0	0-74	185	1	2-9	129	2	0-7
JEFFERSON MEM HOSP CRYSTAL CITY MO 63019	16	13	12-59	17	24	17-62	47	4	3-21	4	0	0-100	151	3	3-11	65	0	3-18	10	0	0-100	134	4	2-10	46	2	0-16
JEWISH HOSP OF ST LOUIS SAINT LOUIS MO 63110	34	12	7-41	60	35	26-54	92	7	4-18	42	0	0-23	351	5	4-10	179	4	3-13	27	0	0-45	559	3	4-8	178	2	1-6

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
KELLER ALBERT M MEM HOSP FAYETTE MO 65248	MO-65 *	228	12	9-20	10	30	7-58	12	25	9-57	6	17	1-63	10	0	5-54	8	50	15-75	4	0	3-76	46	22	12-37
KELLING HOSP WAVERLY MO 64096	MO-66 *	103	19	10-25	7	29	11-74	9	11	7-61	1	0	0-100	3	33	3-83	1	100	2-99	4	0	0-77	24	42	10-44
KIRKSVILLE OSTEO HLTH CTR KIRKSVILLE MO 63501	MO-67 *	838	9	8-15	53	23	16-42	16	25	13-56	10	10	3-51	41	32	14-41	30	33	25-60	13	8	4-48	65	17	12-34
LAFAYETTE REGIONAL HEALTH LEXINGTON MO 64067	MO-68	242	12	9-20	5	0	1-68	9	22	10-66	12	8	5-51	14	36	10-55	10	20	10-62	10	30	7-59	35	20	11-40
LAKE OF THE OZARKS GENERAL OSAGE BEACH MO 65065	MO-69	746	12	9-16	34	29	13-44	17	35	15-58	19	5	4-39	48	25	13-38	23	48	22-61	14	7	4-47	113	19	11-28
LAKESIDE HOSP KANSAS CITY MO 64131	MO-70	403	10	9-18	25	16	12-47	21	24	13-51	16	25	9-50	23	13	8-42	18	28	19-62	14	14	5-48	52	12	10-33
LEE LUCY HOSPITAL POPLAR BLUFF MO 63901	MO-71	1009	14	10-17	55	35	15-40	43	30	16-43	34	15	7-34	53	23	13-36	40	45	24-55	54	13	9-34	102	21	14-31
LEE'S SUMMIT COMM HOSP LEES SUMMIT MO 64063	MO-72 *	905	11	11-18	61	23	18-43	39	31	19-49	25	0	6-38	62	18	15-37	34	29	27-60	26	8	6-38	93	28	15-34
LEVERING HOSP HANNIBAL MO 63401	MO-73	642	12	10-17	46	13	12-39	28	25	17-50	13	23	4-48	40	23	12-38	20	10	19-59	18	17	10-50	72	18	12-32
LIBERTY HOSP LIBERTY MO 64068	MO-74	1217	9	8-15	57	18	13-38	64	34	18-40	36	11	6-32	60	12	11-32	31	26	25-59	25	12	4-36	131	15	11-27
LINCOLN COUNTY MEM HOSP TROY MO 63379	MO-75 *	744	13	10-17	36	28	20-52	34	41	17-48	17	12	8-48	48	27	13-38	14	50	19-68	30	20	6-37	94	17	14-32
LINDELL HOSP SAINT LOUIS MO 63108	MO-76 *	189	4	3-13	3	33	1-81	2	0	2-90	2	0	0-90	5	0	3-70	3	33	7-88	2	50	0-90	10	10	4-53
LUTHERAN MED CTR SAINT LOUIS MO 63118	MO-77	1641	12	9-16	117	32	14-33	69	26	19-41	38	21	7-34	88	16	15-33	45	33	24-53	66	18	9-32	160	24	16-31
MADISON MEM HOSP FREDERICKTOWN MO 63645	MO-78 *	321	15	11-21	16	44	15-60	12	25	13-63	9	22	3-54	14	21	11-56	10	20	15-70	1	0	0-97	63	29	15-37
MCCUNE BROOKS HOSP CARTHAGE MO 64836	MO-79 *	646	13	10-17	36	22	10-39	21	57	15-53	13	23	4-46	37	24	12-40	27	30	25-61	27	15	6-38	83	16	12-31
MEDICAL CENTER OF INDEPEND INDEPENDENCE MO 64057	MO-80 *	803	11	8-15	41	39	13-41	30	17	13-44	9	44	6-59	30	43	13-44	24	42	22-60	20	10	4-39	98	24	13-30
MEMORIAL COMM HOSP JEFFERSON CITY MO 65101	MO-81 *	1202	12	9-16	86	30	18-40	49	24	17-43	22	32	10-47	82	23	14-33	50	44	27-55	15	13	4-44	100	13	11-28
MENORAH MED CTR KANSAS CITY MO 64110	MO-82	1733	7	8-15	158	24	19-36	58	12	16-39	36	6	8-36	81	20	16-36	51	25	25-52	36	8	5-33	80	15	14-33
MERCY HOSP-TRI COUNTY MANSFIELD MO 65704	MO-83	381	15	11-20	12	58	10-59	14	29	15-62	14	29	7-51	22	23	10-45	9	56	17-75	12	8	4-49	93	15	14-33
MINERAL AREA OSTEO HOSP FARMINGTON MO 63640	MO-84 *	663	14	9-16	25	44	11-46	39	31	15-43	17	29	4-42	31	26	10-39	25	52	23-61	15	0	3-43	92	16	12-31
MISSOURI BAPTIST HOSP SAINT LOUIS MO 63131	MO-85 *	2961	7	8-14	194	13	17-34	77	14	18-38	56	7	8-30	126	19	16-31	88	32	29-51	56	18	9-34	160	18	17-32
MISSOURI DELTA MEDICAL CEN SIKESTON MO 63801	MO-86 *	1355	15	9-16	85	26	16-37	68	35	17-39	39	15	7-33	84	25	15-33	59	46	24-50	24	13	7-40	151	23	12-26
MOBERLY REGIONAL MED CTR MOBERLY MO 65270	MO-87	1012	12	9-16	28	29	13-46	32	28	17-49	27	15	6-36	57	28	14-37	29	48	23-59	43	21	10-37	150	20	13-28
NEVADA CITY HOSP NEVADA MO 64772	MO-88 *	543	16	10-19	32	38	14-46	23	48	14-50	13	8	3-46	39	28	13-40	31	48	25-59	22	0	6-41	70	20	10-29
NOLL MEM HOSP BETHANY MO 64424	MO-89	198	12	11-22	5	60	5-73	5	40	7-76	5	20	3-70	9	22	6-59	20	35	23-64	6	17	10-76	17	12	5-42
NORMANDY OSTEO HOSP-NORTH NORMANDY MO 63121	MO-90 *	1076	19	10-17	68	40	16-39	58	41	16-40	29	17	5-34	78	19	13-31	57	46	27-53	42	12	8-35	103	21	14-31

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																				
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
KELLER ALBERT M MEM HOSP FAYETTE MO 65248	4	50	4-79	.	.		6	0	0-80	.	.		19	0	0-31	9	11	0-51				18	0	1-31	9	11	0-72
KELLING HOSP WAVERLY MO 64096	2	50	6-94	.	.		1	0	0-100	.	.		13	8	0-40	3	0	0-94				2	0	0-98	2	0	0-100
KIRKSVILLE OSTEO HLTH CTR KIRKSVILLE MO 63501	6	50	8-74	3	33	4-84	26	12	3-30	12	0	0-97	83	7	2-14	44	0	1-19	9	11	0-63	59	3	2-15	53	0	0-13
LAFAYETTE REGIONAL HEALTH LEXINGTON MO 64067	.	.		.	.		5	20	1-67	.	.		42	0	1-18	14	0	0-39	6	0	0-100	19	0	1-29	3	0	0-100
LAKE OF THE OZARKS GENERAL OSAGE BEACH MO 65065	7	71	8-71	8	63	15-75	14	7	2-41	.	.		90	4	2-12	40	5	1-20	6	0	0-98	60	2	1-14	44	0	0-16
LAKESIDE HOSP KANSAS CITY MO 64131	2	0	0-91	4	25	10-85	16	19	1-35	1	0	0-100	32	3	1-20	23	4	1-28	8	0	0-97	33	6	1-20	20	0	0-41
LEE LUCY HOSPITAL POPLAR BLUFF MO 63901	20	25	8-50	15	40	20-67	29	10	3-28	2	0	0-100	73	3	2-14	30	7	1-23	25	0	0-84	76	3	1-12	51	0	0-18
LEE'S SUMMIT COMM HOSP LEES SUMMIT MO 64063	7	0	6-69	8	38	15-75	44	7	3-23	.	.		85	2	2-13	54	5	2-18	8	0	0-84	86	0	2-13	46	0	0-16
LEVERING HOSP HANNIBAL MO 63401	5	40	1-71	6	17	9-75	27	11	3-29	2	0	0-100	75	3	1-13	29	10	2-26	6	0	0-100	37	11	2-21	36	0	0-22
LIBERTY HOSP LIBERTY MO 64068	19	26	10-54	8	13	13-73	55	2	2-18	8	0	0-99	118	4	2-12	71	3	1-15	17	0	0-98	60	2	1-14	108	2	0-7
LINCOLN COUNTY MEM HOSP TROY MO 63379	10	40	9-65	4	50	8-83	15	7	2-37	1	0	0-100	71	6	1-13	60	3	2-17	8	0	0-97	80	4	1-11	20	0	0-30
LINDELL HOSP SAINT LOUIS MO 63108	1	0	0-98	1	0	1-97	.	.		.	.		11	0	0-46	6	0	0-79	1	0	0-100	15	0	0-38	24	0	0-47
LUTHERAN MED CTR SAINT LOUIS MO 63118	15	13	7-53	11	45	16-69	58	10	4-21	7	0	0-100	132	5	2-11	51	0	1-17	10	0	0-100	123	1	2-11	80	1	0-10
MADISON MEM HOSP FREDERICKTOWN MO 63645	5	40	6-76	6	17	9-75	5	20	1-67	.	.		31	6	1-21	12	0	1-42	4	0	0-100	21	5	1-27	13	0	0-40
MCCUNE BROOKS HOSP CARTHAGE MO 64836	6	33	6-72	5	0	8-78	16	6	2-37	1	0	0-100	74	5	2-14	32	3	1-22	1	0	0-100	54	9	2-17	22	9	0-32
MEDICAL CENTER OF INDEPEND INDEPENDENCE MO 64057	5	20	1-71	10	30	13-68	13	0	1-40	2	0	0-100	81	1	2-13	50	2	2-19	9	0	0-100	66	3	1-13	46	0	0-15
MEMORIAL COMM HOSP JEFFERSON CITY MO 65101	13	23	9-59	6	67	13-80	39	5	3-24	9	0	0-100	132	7	3-12	37	8	1-20	22	0	0-60	139	3	2-10	90	0	0-8
MENORAH MED CTR KANSAS CITY MO 64110	9	22	8-66	12	25	10-60	46	4	2-20	42	2	0-40	163	3	3-11	73	4	1-15	17	0	0-91	169	2	2-9	122	2	0-7
MERCY HOSP-TRI COUNTY MANSFIELD MO 65704	3	33	6-87	6	83	13-80	3	0	0-91	.	.		38	3	1-18	17	0	1-34				36	6	1-19	8	0	0-96
MINERAL AREA OSTEO HOSP FARMINGTON MO 63640	13	31	12-63	4	50	7-82	10	20	1-47	.	.		77	6	1-12	20	5	1-30	6	0	0-100	62	0	1-13	31	0	0-26
MISSOURI BAPTIST HOSP SAINT LOUIS MO 63131	11	9	7-60	21	38	16-57	61	3	3-18	7	0	0-98	270	5	3-10	157	1	1-11	35	0	0-39	432	3	3-8	217	1	0-5
MISSOURI DELTA MEDICAL CEN SIKESTON MO 63801	18	44	8-51	13	46	17-68	41	10	4-24	17	0	0-83	147	5	2-10	64	2	1-15	24	0	0-55	103	5	1-10	28	11	0-22
MOBERLY REGIONAL MED CTR MOBERLY MO 65270	11	18	7-60	3	0	8-90	30	7	3-27	3	0	0-100	123	5	2-11	37	3	1-20	9	0	0-100	83	2	2-13	81	1	0-9
NEVADA CITY HOSP NEVADA MO 64772	13	15	7-56	5	40	8-78	20	15	2-33	1	0	0-100	60	5	1-14	12	17	1-42	8	0	0-97	51	0	1-14	9	0	0-75
NOLL MEM HOSP BETHANY MO 64424	.	.		1	0	2-98	1	0	0-97	.	.		20	5	3-33	16	0	1-35	1	0	0-100	21	0	1-28	3	0	0-100
NORMANDY OSTEO HOSP-NORTH NORMANDY MO 63121	11	18	7-60	15	60	19-67	22	27	2-31	.	.		106	6	2-12	41	2	1-19	18	6	0-40	66	3	1-13	80	5	0-9

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
NORMANDY OSTEO HOSP-SOUTH SAINT LOUIS MO 63131	MO-91	761	11	8-16	41	27	15-45	30	10	15-48	14	14	8-53	36	28	11-38	17	41	18-62	12	17	4-50	78	15	11-30
NORTH KANSAS CITY HOSPITAL NORTH KANSAS CITY MO 64116	MO-92 *	2282	10	8-15	153	20	18-36	64	19	18-41	41	17	6-32	112	19	16-33	80	36	29-52	28	14	5-35	157	13	14-29
OAK HILL OSTEO HOSP JOPLIN MO 64801	MO-93	847	15	7-14	32	41	13-45	24	46	14-49	20	20	3-36	36	25	10-38	25	48	23-60	19	26	4-41	98	23	12-29
OZARKS MEDICAL CENTER WEST PLAINS MO 65775	MO-94 *	1104	14	9-16	62	27	15-40	43	30	17-45	25	16	8-41	49	24	12-36	44	48	25-54	22	36	7-43	121	19	12-28
PARK LANE MEDICAL CENTER KANSAS CITY MO 64133	MO-95	603	8	7-14	38	24	15-45	14	21	11-56	11	18	6-55	26	8	10-42	14	50	21-69	16	13	2-40	40	13	8-32
PEMISCOT CO MEM HOSP HAYTI MO 63851	MO-96 *	606	11	10-18	23	39	12-49	51	27	19-45	11	9	3-49	46	7	12-36	26	31	21-57	21	5	4-39	88	16	12-31
PERRY CO MEM HOSP PERRYVILLE MO 63775	MO-97	408	15	11-20	8	25	12-71	25	24	15-50	14	14	4-46	30	20	11-41	12	50	19-71	5	20	4-72	86	17	15-35
PERSHING MEM HOSP BROOKFIELD MO 64628	MO-98	336	12	10-20	14	29	13-61	16	19	13-56	8	13	2-55	16	13	7-47	18	50	22-65	4	25	1-74	68	18	12-33
PHELPS CO REG MED CTR ROLLA MO 65401	MO-99	1395	10	9-16	80	24	13-35	79	22	21-42	44	20	10-37	59	10	14-36	42	31	25-55	27	22	7-40	158	16	12-27
PIKE CO MEM HOSP LOUISIANA MO 63353	MO-100*	374	16	10-20	27	44	13-47	20	35	12-50	15	40	5-46	19	26	8-45	23	30	23-62	5	20	1-68	41	12	13-40
POPLAR BLUFF HOSP POPLAR BLUFF MO 63901	MO-101*	162	14	10-23	9	67	13-70	4	50	7-81	3	33	6-87	7	29	7-67	6	67	13-79	5	0	1-69	21	14	12-49
PULASKI CO MEM HOSP WAYNESVILLE MO 65583	MO-102*	115	14	9-23	2	50	2-90	9	11	9-65	6	0	4-67	7	43	6-65	6	17	9-74	2	0	0-92	28	21	7-37
PUTNAM CO MEM HOSP UNIONVILLE MO 63565	MO-103*	164	12	10-22	1	0	0-97	8	13	7-64	2	0	0-94	12	8	7-54	12	25	19-70	13	8	3-46	26	19	9-41
RAY CO MEM HOSP RICHMOND MO 64085	MO-104*	352	16	12-21	18	50	13-54	20	20	14-53	6	17	4-68	17	35	9-48	12	42	19-70	13	15	6-52	65	23	13-35
RESEARCH MED CTR KANSAS CITY MO 64132	MO-105	4031	9	9-15	372	19	20-35	119	22	20-37	89	19	10-29	155	22	17-31	104	38	28-49	61	10	7-30	301	18	14-26
REYNOLDS CO GEN MEM HOSPIT ELLINGTON MO 63638	MO-106*	50	24	9-31	1	100	0-97	7	43	7-67	2	0	0-89	1	100	1-97	5	60	7-76	.	.		8	25	4-59
RIPLEY COUNTY MEM HOSP DONIPHAN MO 63935	MO-107*	179	25	10-23	1	100	3-99	13	15	11-57	5	60	1-68	9	33	4-56	18	56	16-58	3	0	0-83	41	32	10-36
SAC-OSAGE HOSP OSCEOLA MO 64776	MO-108*	376	15	10-20	12	58	16-68	17	6	13-55	16	13	3-41	28	43	10-41	13	38	20-70	13	15	5-49	51	25	12-36
SALE HOSP INC NEOSHO MO 64850	MO-109*	730	13	9-17	40	35	15-44	31	35	15-47	21	14	8-44	39	26	15-42	24	54	21-59	14	0	3-44	85	16	11-29
SALEM MEM DISTRICT HOSP SALEM MO 65560	MO-110*	390	13	9-17	9	44	11-67	13	31	13-61	8	13	1-55	21	19	9-45	13	38	18-67	11	18	4-52	63	17	11-32
SAMARITAN MEM HOSP MACON MO 63552	MO-111*	334	19	10-20	11	55	17-71	12	8	13-62	11	27	4-51	26	35	12-45	20	45	19-60	11	9	3-51	38	26	11-38
SCOTLAND CO MEM HOSP MEMPHIS MO 63555	MO-112*	162	15	12-26	1	0	1-98	13	23	9-55	4	25	1-74	7	0	5-64	12	58	20-71	6	17	3-65	33	21	13-43
SKAGGS COMM HOSP BRANSON MO 65616	MO-113*	898	12	9-16	38	39	15-45	35	31	16-46	23	17	7-40	51	24	13-36	41	29	25-55	16	25	6-47	107	15	11-28
SOUTH BARRY CO MEM HOSP CASSVILLE MO 65625	MO-114*	205	12	10-22	3	67	2-82	5	20	8-78	3	33	1-81	25	16	10-42	11	27	21-74	12	8	5-51	33	24	12-42
SOUTHEAST MISSOURI HOSP CAPE GIRARDEAU MO 63701	MO-115*	2124	11	8-15	229	24	18-34	53	32	17-42	27	19	6-37	104	25	15-32	75	41	26-49	32	6	8-38	120	18	12-28
SPELMAN MEM HOSP SMITHVILLE MO 64089	MO-116	605	12	10-18	43	26	10-37	33	33	17-48	11	0	4-51	21	24	10-46	21	33	19-59	16	6	5-46	74	16	12-32

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
NORMANDY OSTEO HOSP-SOUTH SAINT LOUIS MO 63131	8	25	4-62	13	46	16-66	30	17	2-25	11	0	0-100	70	1	1-13	35	3	1-21	15	[illegible]	0-97	54	6	1-15	64	0	0-13
NORTH KANSAS CITY HOSPITAL NORTH KANSAS CITY MO 64116	24	21	7-46	27	37	22-59	68	16	3-19	26	0	0-44	244	5	2-9	115	3	1-12	16	6	0-78	192	3	2-9	164	3	1-6
OAK HILL OSTEO HOSP JOPLIN MO 64801	4	25	2-76	2	50	3-92	28	18	2-27	4	0	0-100	74	4	1-13	62	5	1-16	5	0	0-100	93	3	1-11	61	3	0-12
OZARKS MEDICAL CENTER WEST PLAINS MO 65775	11	27	6-58	14	36	15-64	44	9	4-25	5	0	0-100	113	5	2-12	49	10	1-18	19	0	0-77	113	5	2-10	69	1	0-11
PARK LANE MEDICAL CENTER KANSAS CITY MO 64133	3	0	2-83	2	50	1-89	20	20	2-32	2	0	0-100	60	2	1-15	27	0	1-25	10	0	0-88	50	4	1-15	72	0	0-11
PEMISCOT CO MEM HOSP HAYTI MO 63851	14	36	5-53	6	17	8-73	1	0	0-100	.	.		54	2	1-15	52	4	1-17		.		46	2	1-16	18	0	0-52
PERRY CO MEM HOSP PERRYVILLE MO 63775	2	100	5-94	.	.		1	0	0-100	.	.		43	14	1-18	21	10	1-29	6	0	0-96	26	4	1-24	8	13	0-81
PERSHING MEM HOSP BROOKFIELD MO 64628	3	0	1-83	.	.		9	22	2-51	.	.		31	10	1-22	19	0	1-31	2	0	0-100	27	0	1-23	13	0	0-47
PHELPS CO REG MED CTR ROLLA MO 65401	21	10	9-51	23	17	18-57	54	6	3-21	2	0	0-100	117	5	2-11	67	7	2-16	27	0	0-44	132	2	2-9	68	0	0-11
PIKE CO MEM HOSP LOUISIANA MO 63353	2	100	2-90	2	50	1-89	16	6	3-38	.	.		30	7	1-23	24	4	0-27	3	0	0-100	24	[illegible]	1-25	14	7	0-45
POPLAR BLUFF HOSP POPLAR BLUFF MO 63901	.	.		2	50	3-91	3	0	0-93	.	.		10	10	1-47	7	0	1-57	.	.		20	5	1-29	10	0	0-77
PULASKI CO MEM HOSP WAYNESVILLE MO 65583	1	0	0-97	1	0	1-97	3	33	0-84	.	.		15	7	0-37	2	0	0-100	.	.		7	0	0-59	1	0	0-100
PUTNAM CO MEM HOSP UNIONVILLE MO 63565	.			.	.		4	50	1-74	1	0	0-100	11	0	2-46	7	0	0-61	1	0	0-100	[illegible]	0	1-53	5	0	0-96
RAY CO MEM HOSP RICHMOND MO 64085	10	40	13-70	3	0	3-84	13	8	3-43	1	0	0-100	36	0	1-20	15	0	1-37	3	0	0-93	18	0	0-31	14	7	0-52
RESEARCH MED CTR KANSAS CITY MO 64132	59	14	11-42	33	24	24-59	78	5	3-18	23	0	0-73	328	4	3-10	181	1	1-10	47	0	0-30	316	5	3-8	379	1	1-4
REYNOLDS CO GEN MEM HOSPIT ELLINGTON MO 63638	.	.		1	0	1-97	.	.		.	.		5	0	1-68	.	.			.		3	0	0-98	1	0	0-100
RIPLEY COUNTY MEM HOSP DONIPHAN MO 63935	3	33	4-85	1	0	2-98	5	60	1-67	.	.		7	0	0-66	4	0	0-87				13	0	0-40	3	0	0-100
SAC-OSAGE HOSP OSCEOLA MO 64776	8	25	5-64	4	25	8-83	1	0	0-98	.			32	6	2-23	17	6	2-35	1	0	0-100	39	0	1-19	16	0	0-51
SALE HOSP INC NEOSHO MO 64850	11	[illegible]	6-58	10	40	15-71	19	16	2-33	2	0	0-100	101	5	2-12	36	6	2-23	5	0	0-100	67	4	2-15	38	5	0-17
SALEM MEM DISTRICT HOSP SALEM MO 65560	4	50	5-80	1	0	1-97	5	0	1-67	.	.		33	6	1-20	21	10	3-34	1	0	0-100	47	4	1-16	15	0	0-52
SAMARITAN MEM HOSP MACON MO 63552	8	25	6-65	4	50	5-79	13	15	1-40	.			30	13	1-22	8	0	0-55		.		40	5	1-18	11	0	0-59
SCOTLAND CO MEM HOSP MEMPHIS MO 63555	3	67	12-94	2	0	4-92	6	0	2-63	.			14	0	1-37	6	0	0-64	1	0	0-100	8	38	0-54	12	0	0-48
SKAGGS COMM HOSP BRANSON MO 65616	9	0	5-61	6	17	9-75	25	12	3-31	11	0	0-90	99	5	2-12	30	3	1-23	5	0	0-100	67	6	1-13	79	1	0-9
SOUTH BARRY CO MEM HOSP CASSVILLE MO 65625	2	0	2-91	1	100	2-98	1	100	0-98	.	.		9	11	0-51	.	.					24	0	1-25	2	0	0-100
SOUTHEAST MISSOURI HOSP CAPE GIRARDEAU MO 63701	14	14	10-59	9	67	19-77	50	8	4-22	16	0	0-68	189	6	2-10	176	1	1-10	47	0	0-21	316	7	2-8	79	1	1-10
SPELMAN MEM HOSP SMITHVILLE MO 64089	11	27	5-56	15	27	18-65	16	6	1-35	1	0	0-100	80	4	2-14	30	0	1-23	4	0	0-100	44	2	1-16	21	0	0-38

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
SPRINGFIELD COMMUNITY HOSP SPRINGFIELD MO 65807	MO-117	529	7	7-15	32	22	15-47	19	26	12-52	11	18	4-51	26	15	11-44	3	0	9-90	4	50	6-80	36	25	11-39
SPRINGFIELD GEN OSTEOPATHI SPRINGFIELD MO 65801	MO-118*	565	14	9-17	31	19	12-44	18	17	16-58	11	18	2-47	25	32	9-42	19	63	26-68	13	8	4-47	67	16	11-32
SPRINGFIELD PARK CENTRAL H SPRINGFIELD MO 65806	MO-119*	297	7	5-14	6	33	6-70	5	0	3-70	3	0	1-81	13	15	7-52	5	60	9-78	5	40	10-81	22	23	8-42
ST ANTHONY'S MED CTR SAINT LOUIS MO 63128	MO-120*	3572	11	9-15	260	20	19-34	147	29	21-37	38	16	9-37	210	25	17-30	135	40	30-49	70	16	11-34	228	21	15-28
ST ELIZABETHS HOSP HANNIBAL MO 63401	MO-121*	746	12	8-16	52	27	14-40	20	25	11-49	10	10	3-51	47	32	13-38	31	39	22-56	19	11	3-39	79	15	11-29
ST FRANCIS HOSP MARCELINE MO 64658	MO-122	253	15	11-22	9	44	15-73	12	42	14-64	16	6	6-46	18	33	9-48	15	40	18-64	9	22	9-65	29	14	9-39
ST FRANCIS HOSP MARYVILLE MO 64468	MO-123*	543	13	11-20	26	35	12-46	12	33	11-60	16	13	5-45	41	27	16-44	30	47	25-59	32	16	10-41	77	13	13-33
ST FRANCIS HOSP MOUNTAIN VIEW MO 65548	MO-124	226	17	10-21	9	89	10-66	9	11	8-62	1	0	3-100	14	36	8-51	12	75	21-72	9	11	4-56	41	12	11-37
ST FRANCIS MED CTR CAPE GIRARDEAU MO 63701	MO-125	3079	9	7-13	196	18	16-33	94	24	18-37	50	14	8-32	136	25	15-30	100	44	27-48	31	19	8-39	185	16	14-28
ST JOHN'S MERCY MED CTR CREVE COEUR MO 63141	MO-126	4158	10	9-15	426	24	19-34	123	28	19-36	95	11	12-31	167	22	16-30	141	35	30-48	58	3	6-29	226	17	15-28
ST JOHN'S MERCY MEDICAL CE WASHINGTON MO 63090	MO-127	1355	12	9-16	84	30	14-36	57	25	17-41	38	34	10-38	91	13	12-29	69	39	26-50	21	14	6-42	113	19	13-30
ST JOHN'S REG MED CTR JOPLIN MO 64801	MO-128	3397	11	8-15	293	30	20-35	75	40	18-39	62	13	10-33	141	28	16-31	108	39	27-47	87	16	12-33	196	18	14-28
ST JOHN'S REGIONAL HEALTH SPRINGFIELD MO 65802	MO-129	7982	9	8-14	669	20	19-32	216	27	22-36	92	18	10-29	295	21	17-28	374	26	32-44	71	10	10-33	413	17	15-26
ST JOSEPH HEALTH CENTER KANSAS CITY MO 64114	MO-130	2417	11	9-15	161	27	19-37	98	36	20-39	39	10	5-30	120	18	15-31	88	38	26-48	39	18	6-33	247	15	14-26
ST JOSEPH HEALTH CTR SAINT CHARLES MO 63301	MO-131	2194	12	10-16	126	29	16-35	62	34	17-41	61	26	9-31	128	30	16-32	75	36	30-53	64	20	11-35	202	17	15-29
ST JOSEPH HOSPITAL WEST ST LOUIS MO 63367	MO-132	5	20	0-72	.	.		.	.		.	.		.	.		.	.		1	100	0-98	.	.	
ST JOSEPH'S HOSP OF KIRKWO KIRKWOOD MO 63122	MO-133	2807	11	10-16	217	25	18-35	116	24	21-39	60	17	8-30	141	21	17-32	126	33	28-47	45	11	7-32	265	21	16-2[illegible]
ST LOUIS REGIONAL MEDICAL SAINT LOUIS MO 63112	MO-134	960	18	8-16	80	30	13-34	42	19	14-40	49	22	6-28	65	28	12-33	22	45	23-63	63	22	6-29	80	25	9-27
ST LOUIS STATE HOSP MED/SU SAINT LOUIS MO 63139	MO-135*	15	20	2-37	.	.		.	.		.	.		.	.		.			.			2	50	4-92
ST LUKE'S HOSP OF KANSAS C KANSAS CITY MO 64111	MO-136	5643	8	8-14	430	17	18-32	120	23	19-36	106	18	12-31	224	15	18-30	224	27	29-44	72	13	8-30	334	11	14-25
ST LUKE'S HOSP WEST CHESTERFIELD MO 63017	MO-137*	3068	[illegible]	8-14	253	23	18-33	86	20	20-40	52	17	9-33	131	17	16-32	85	34	28-49	45	13	9-35	220	15	14-27
ST MARY'S HEALTH CTR JEFFERSON CITY MO 65101	MO-138	900	12	9-16	38	24	14-43	45	24	15-41	31	16	6-34	59	32	14-37	52	42	26-53	10	20	4-54	73	21	11-31
ST MARY'S HLTH CTR RICHMOND HEIGHTS MO 63117	MO-139*	4144	10	8-15	360	19	17-31	124	22	21-38	92	18	10-29	195	26	17-30	131	39	31-49	81	10	7-28	270	20	14-27
ST MARY'S HOSP KANSAS CITY MO 64108	MO-140	1465	9	8-14	86	15	17-38	58	22	18-43	35	26	9-38	62	26	14-36	33	33	21-54	32	28	9-40	108	18	12-29
ST MARYS HOSP OF BLUE SPRI BLUE SPRINGS MO 64015	MO-141	809	10	8-16	56	25	15-40	26	15	13-47	23	26	7-41	42	24	13-39	26	38	21-58	13	[illegible]	4-47	96	9	12-30
ST MARYS WEST RICHMOND HEIGHTS MO 63117	MO-142*	258	0	1-10	[illegible]	0	9-74	1	0	1-97	.	.		6	0	3-64	2	0	4-92	2	0	1-89	7	0	2-59

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
SPRINGFIELD COMMUNITY HOSP SPRINGFIELD MO 65807	2	0	3-91	3	33	4-85	8	0	1-53	21	0	0-75	54	7	1-15	15	0	0-38	1	0	0-100	24	4	1-25	38	0	0-21
SPRINGFIELD GEN OSTEOPATHI SPRINGFIELD MO 65801	10	30	8-63	11	27	14-67	17	18	1-34	.	.		62	10	1-14	28	14	1-24	8	0	0-97	47	9	1-16	49	8	0-14
SPRINGFIELD PARK CENTRAL H SPRINGFIELD MO 65806	2	0	1-90	1	100	0-97	6	0	1-62	3	0	0-100	11	0	0-48	3	67	0-85	.	.		8	13	0-55	12	8	0-72
ST ANTHONY'S MED CTR SAINT LOUIS MO 63128	28	32	11-49	43	37	23-54	112	11	5-18	18	0	0-70	380	6	4-9	156	3	1-11	45	0	0-50	253	6	2-8	306	1	0-4
ST ELIZABETHS HOSP HANNIBAL MO 63401	11	18	3-54	2	50	3-91	21	5	2-31	6	0	0-99	93	2	1-12	41	10	2-22	9	0	0-100	53	4	1-15	31	0	0-26
ST FRANCIS HOSP MARCELINE MO 64658	3	67	2-83	3	33	4-84	13	8	2-43	2	0	0-100	34	3	3-24	11	0	0-45	3	0	0-100	12	0	1-41	7	0	0-70
ST FRANCIS HOSP MARYVILLE MO 64468	4	50	11-87	5	60	11-82	13	0	1-40	.	.		60	3	1-15	25	0	1-26	9	0	0-100	24	0	1-25	21	10	0-33
ST FRANCIS HOSP MOUNTAIN VIEW MO 65548	11	36	7-60	2	50	3-91	.	.		.	.		28	4	0-22	4	0	0-79	.	.		16	0	1-34	16	0	0-46
ST FRANCIS MED CTR CAPE GIRARDEAU MO 63701	17	24	5-49	9	56	15-73	96	10	5-18	116	2	0-8	343	3	2-8	140	4	2-12	9	11	0-50	218	7	2-8	255	2	0-4
ST JOHN'S MERCY MED CTR CREVE COEUR MO 63141	23	4	5-44	24	29	22-61	120	8	4-16	87	0	0-11	371	6	3-9	142	7	2-12	51	2	0-37	412	5	3-7	287	2	1-5
ST JOHN'S MERCY MEDICAL CE WASHINGTON MO 63090	14	14	7-56	9	44	11-68	40	5	3-23	6	0	0-100	139	4	2-11	79	0	0-14	17	6	0-33	140	6	2-9	29	0	0-22
ST JOHN'S REG MED CTR JOPLIN MO 64801	42	33	14-48	21	57	22-64	108	7	3-15	24	0	0-87	284	3	2-8	143	5	1-11	25	0	0-31	421	6	3-8	275	0	0-4
ST JOHN'S REGIONAL HEALTH SPRINGFIELD MO 65802	34	24	10-46	32	34	20-54	244	11	5-15	334	1	0-2	655	4	3-8	482	3	1-9	69	0	0-13	823	4	3-7	749	1	1-3
ST JOSEPH HEALTH CENTER KANSAS CITY MO 64114	21	29	14-58	33	30	18-52	81	6	5-19	30	0	0-46	244	3	3-9	86	0	1-13	27	0	0-71	210	5	2-8	208	1	0-5
ST JOSEPH HEALTH CTR SAINT CHARLES MO 63301	15	27	11-59	46	28	22-52	66	5	4-20	7	0	0-100	191	6	2-10	86	6	3-16	17	0	0-92	208	4	3-9	143	2	1-7
ST JOSEPH HOSPITAL WEST ST LOUIS MO 63367	.	.		.	.		.	.		.	.		.	.		.	.		.	.		2	0	0-100		.	
ST JOSEPH'S HOSP OF KIRKWO KIRKWOOD MO 63122	26	8	8-46	24	29	21-60	96	7	4-18	27	0	0-57	289	7	3-9	109	4	2-13	32	0	0-27	266	3	2-8	189	2	0-5
ST LOUIS REGIONAL MEDICAL SAINT LOUIS MO 63112	12	42	4-54	15	67	16-63	29	0	1-25	5	0	0-100	45	9	2-19	50	14	1-17	4	0	0-100	66	6	1-13	33	6	0-24
ST LOUIS STATE HOSP MED/SU SAINT LOUIS MO 63139	.	.		.	.		.	.		.	.		.	.		.	.		.	.		1	0	0-100	1	0	0-99
ST LUKE'S HOSP OF KANSAS C KANSAS CITY MO 64111	57	11	7-38	28	43	25-62	127	10	4-16	23	0	0-63	421	3	3-9	185	4	1-11	42	0	0-26	1223	5	3-6	467	1	1-4
ST LUKE'S HOSP WEST CHESTERFIELD MO 63017	29	28	9-47	15	40	14-60	82	6	3-17	34	0	0-54	296	3	3-9	100	1	1-13	53	0	0-22	345	2	3-8	293	1	0-4
ST MARY'S HEALTH CTR JEFFERSON CITY MO 65101	15	7	8-56	1	100	2-98	42	14	3-22	1	0	0-100	87	5	2-13	27	0	1-25	18	0	0-95	71	3	1-12	62	0	0-11
ST MARY'S HLTH CTR RICHMOND HEIGHTS MO 63117	33	33	14-51	43	47	23-55	130	8	4-16	69	0	0-17	443	3	3-8	136	3	1-12	45	0	0-38	441	3	3-7	276	2	1-5
ST MARY'S HOSP KANSAS CITY MO 64108	3	0	2-83	18	28	17-61	19	5	2-32	7	0	0-99	130	4	2-11	62	3	2-16	13	0	0-92	129	5	2-10	127	2	0-7
ST MARYS HOSP OF BLUE SPRI BLUE SPRINGS MO 64015	11	27	5-57	5	20	8-78	25	12	3-30	5	0	0-100	68	6	1-13	38	0	1-20	11	0	0-100	57	5	2-15	87	0	0-9
ST MARYS WEST RICHMOND HEIGHTS MO 63117	1	0	0-99	.	.		.	.		131	0	0-6	13	0	0-40	1	0	0-99	1	0	0-100	11	0	0-47	33	0	0-32

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST PETERS COMM HOSP SAINT PETERS MO 63376	MO-143*	604	10	8-16	28	21	14-49	36	28	17-47	8	13	5-61	29	28	11-42	22	41	26-66	9	22	3-54	47	17	13-39
ST VINCENT S HOSP MONETT MO 65708	MO-144	631	13	10-17	7	71	7-68	25	40	15-50	10	0	2-50	52	27	14-38	20	50	25-66	38	16	7-34	90	20	12-30
STE GENEVIEVE CO MEM HOSP STE GENEVIEVE MO 63670	MO-145*	271	14	10-21	17	35	12-54	11	18	10-60	7	29	3-61	31	19	10-40	14	21	20-68	7	14	6-66	32	34	12-43
STILL CHARLES E OSTEO HOSP JEFFERSON CITY MO 65101	MO-146*	1113	14	10-17	77	36	19-42	67	27	18-40	25	16	7-40	54	30	14-38	38	26	25-56	26	12	8-41	113	25	13-30
SULLIVAN CO MEM HOSP MILAN MO 63556	MO-147*	137	21	10-24	2	0	1-89	4	0	5-79	9	22	7-61	5	100	4-72	1	100	2-98	4	50	8-83	25	28	10-43
SULLIVAN COMM HOSP SULLIVAN MO 63080	MO-148	443	16	11-19	19	37	13-54	24	25	14-50	4	0	3-76	27	30	12-44	18	61	20-64	17	6	4-43	74	11	12-32
SWEET SPRINGS COMM HOSP SWEET SPRINGS MO 65351	MO-149*	183	13	12-24	12	42	14-65	8	50	13-73	3	0	0-82	10	20	6-57	8	63	15-75	5	20	3-70	38	11	16-45
TEXAS CO MEM HOSP HOUSTON MO 65483	MO-150*	546	10	9-17	18	28	9-49	26	31	14-48	11	0	3-49	38	11	13-40	10	20	17-72	15	0	5-47	105	15	13-30
THE UNIVERSITY HOSPITAL ST SAINT LOUIS MO 63104	MO-151	2588	12	8-14	216	19	20-36	74	30	16-36	42	17	9-35	112	21	16-32	101	46	25-45	42	26	11-39	108	19	14-32
TRINITY LUTHERAN HOSP KANSAS CITY MO 64108	MO-152	1856	8	9-15	163	23	18-36	50	18	17-43	28	11	8-40	79	16	15-35	58	26	25-51	37	0	8-36	104	15	15-33
TRUMAN MED CTR KANSAS CITY MO 64108	MO-153*	1238	10	7-14	83	22	17-39	40	18	15-42	32	28	5-32	65	17	13-34	37	35	21-52	24	17	6-39	93	9	9-26
TRUMAN MED CTR-EAST KANSAS CITY MO 64139	MO-154*	257	14	7-17	11	45	12-64	8	13	6-62	9	11	4-55	14	21	8-51	7	43	13-76	5	33	2-64	26	35	10-42
TWIN RIVERS REGIONAL MEDIC KENNETT MO 63857	MO-155*	733	12	9-16	20	25	15-55	26	27	14-49	23	13	4-35	35	17	10-37	42	52	27-57	21	14	6-42	97	18	11-28
UNIV OF HEALTH SCIENCES KANSAS CITY MO 64124	MO-156	498	14	10-18	20	30	7-44	16	31	9-51	20	5	4-38	29	28	13-44	29	48	24-59	26	31	8-41	50	14	11-35
UNIV OF MISSOURI HOSP AND COLUMBIA MO 65201	MO-157*	1649	9	7-14	123	22	19-38	28	36	14-48	42	19	11-39	46	20	14-39	40	30	23-53	17	6	3-41	85	15	12-31
US ARMY HOSP FORT LEONARD WOOD MO 65473	MO-158*	2	50	0-99	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
VA HOSP ST LOUIS MO 63106	MO-159*	61	13	3-19	.			.	.		.	.		1	0	0-97	.	.		.	.		.	.	
WASHINGTON CO MEM HOSP POTOSI MO 63664	MO-160*	276	17	10-20	11	36	8-58	14	29	11-56	7	0	2-59	24	33	9-42	17	41	22-66	5	0	0-71	40	23	10-36
WESTERN MO MEDICAL CTR WARRENSBURG MO 64093	MO-161*	687	15	11-19	30	17	13-46	25	28	14-48	19	21	5-41	44	27	14-40	29	24	23-58	15	27	7-50	107	36	18-36
WRIGHT MEM HOSP TRENTON MO 64683	MO-162*	527	16	11-19	14	71	14-62	34	44	16-46	14	21	7-51	32	28	12-42	23	48	21-60	12	33	9-58	74	12	13-33

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST PETERS COMM HOSP SAINT PETERS MO 63376	4	50	6-82	2	0	5-93	12	8	1-42	4	0	0-100	69	1	1-13	17	12	0-34	5	0	0-100	55	5	2-15	59	3	0-12
ST VINCENT S HOSP MONETT MO 65708	14	36	11-60	5	20	6-76	5	20	1-67	2	0	0-100	58	3	2-16	14	0	0-39	1	0	0-100	73	4	2-14	31	3	0-21
STE GENEVIEVE CO MEM HOSP STE GENEVIEVE MO 63670	2	50	5-94	.	.		8	25	0-55	.	.		26	0	0-24	10	0	0-70	5	0	0-100	18	0	1-31	16	0	0-35
STILL CHARLES E OSTEO HOSP JEFFERSON CITY MO 65101	18	33	10-55	10	40	13-69	40	8	3-23	4	0	0-100	89	10	2-13	40	5	4-25	13	0	0-92	56	5	1-15	89	3	0-9
SULLIVAN CO MEM HOSP MILAN MO 63556	4	25	1-76	1	0	3-99	7	14	0-59	.	.		20	5	2-32	11	0	2-46	2	0	0-100	5	20	0-71	4	0	0-100
SULLIVAN COMM HOSP SULLIVAN MO 63080	10	80	9-65	2	0	3-91	10	0	2-48	.	.		58	7	2-15	22	9	1-28	1	0	0-100	22	18	1-27	14	0	0-62
SWEET SPRINGS COMM HOSP SWEET SPRINGS MO 65351	2	0	1-90	.	.		.	.		.	.		17	6	1-34	12	0	1-42	.	.		20	0	1-28	5	0	0-90
TEXAS CO MEM HOSP HOUSTON MO 65483	9	0	3-59	5	40	6-76	15	7	1-37	.	.		50	6	1-16	25	4	1-26	3	0	0-100	51	4	1-16	23	4	0-28
THE UNIVERSITY HOSPITAL ST SAINT LOUIS MO 63104	26	0	3-40	7	43	10-73	41	20	3-23	4	0	0-100	139	6	4-13	69	14	3-18	19	0	0-49	466	7	3-8	176	3	0-5
TRINITY LUTHERAN HOSP KANSAS CITY MO 64108	17	35	12-58	21	38	23-65	33	3	3-26	102	0	0-11	115	2	2-11	75	3	1-14	18	0	0-92	257	4	3-9	115	4	1-8
TRUMAN MED CTR KANSAS CITY MO 64108	19	26	7-49	9	44	16-74	23	4	2-30	28	4	0-56	97	5	2-12	37	5	1-20	13	0	0-91	90	6	1-11	59	2	0-12
TRUMAN MED CTR-EAST KANSAS CITY MO 64139	3	33	1-83	1	0	1-97	1	0	0-100	1	0	0-100	14	7	0-38	13	8	1-40	2	0	0-100	18	0	0-32	1	0	0-100
TWIN RIVERS REGIONAL MEDIC KENNETT MO 63857	8	0	3-61	4	50	9-84	5	0	0-73	.	.		85	5	2-13	63	6	2-17	5	0	0-100	78	4	2-13	33	0	0-21
UNIV OF HEALTH SCIENCES KANSAS CITY MO 64124	9	56	10-68	12	42	14-66	17	0	1-34	1	0	0-100	41	7	2-20	30	7	1-24	3	0	0-100	30	3	1-22	30	0	0-33
UNIV OF MISSOURI HOSP AND COLUMBIA MO 65201	55	15	6-37	9	67	16-74	29	10	2-26	27	0	0-71	87	9	2-14	63	2	1-15	22	0	0-40	249	6	3-9	105	1	0-8
US ARMY HOSP FORT LEONARD WOOD MO 65473	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
VA HOSP ST LOUIS MO 63106	60	13	1-35	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
WASHINGTON CO MEM HOSP POTOSI MO 63664	5	40	4-74	1	100	1-97	11	9	1-44	.	.		30	3	1-22	6	0	0-72	4	0	0-100	36	0	1-18	3	0	0-100
WESTERN MO MEDICAL CTR WARRENSBURG MO 64093	3	33	6-88	8	63	15-75	32	9	4-28	2	0	0-100	66	3	2-15	39	13	2-22	1	0	0-100	56	2	1-15	45	0	0-15
WRIGHT MEM HOSP TRENTON MO 64683	9	67	7-64	4	75	12-87	21	14	2-32	.	.		41	2	1-17	13	8	2-42	1	0	0-100	31	3	1-22	35	0	0-21 *

*Written Comments Not Submitted.

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AUDRAIN MEDICAL CENTER
AMC
FOUNDED 1918

620 EAST MONROE, MEXICO, MISSOURI 65265

TELEPHONE 314 581-1760

Charles P. Jansen
ADMINISTRATOR

October 16, 1987

Medicare Provider #26-0064

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26676
Baltimore, Maryland 21201

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dear Dr. Roper:

We are in receipt of the selected mortality information regarding short-term acute care provided to Medicare patients by Audrain Medical Center in 1986. We have reviewed this information and wish to provide the following comments to be published with the mortality information.

Comments: These comments pertain only to the mortality information regarding HS-Severe Acute Heart Disease.

1. The sample size of 33 cases and 21 deaths is very small and probably not large enough to be statistically significant.

2. One patient was terminally ill with cancer.

3. Twelve of the 21 patients or families requested that no heroic measures be taken to sustain the life of the patient.

4. Sixteen of the 21 patients were over 75 years old.
Eight of the 21 patients were over 80 years old.
Three of the 21 patients were over 85 years old.
One of the 21 patients was over 90 years old.

We appreciate the opportunity to make these few brief comments as above. We will appreciate their being published with the mortality information.

Yours sincerely,

Charles P. Jansen
Administrator

CPJ/rr

DENNIS L. McCLATCHEY
SENIOR VICE PRESIDENT
OPERATIONS

BAPTIST MEDICAL CENTER
MEDICARE IDENTIFICATION NUMBER
26-0107

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

Baptist Medical Center appreciates the opportunity to have data made available allowing for further evaluation of the care the hospital delivers. However, there are questions concerning the methodology used by HCFA to determine the overall mortality rates presented. These questions in methodology do present some difficulties in drawing overall conclusions from the data supplied.

For example, a mortality is credited to a hospital if a death occurs within thirty days of the hospital admission. This means that a patient could die several days after being discharged from the hospital and the cause of death could be unrelated to the hospital admission. Indeed, according to HCFA, as many as 23% of the mortalities reported for the Medical Center occurred following discharge from the Medical Center.

Regarding the total number of Medicare admissions for the time period recorded, Baptist Medical Center's records indicate there were 4,316 admissions not 2,808 as reported by HCFA. This discrepancy inflates Baptist Medical Center's mortality rate from an actual 8.2% to a reported 12.7% for Medicare patients. The Medical Center's records further indicate 356 deaths within 30 days of admission (282 died while in the hospital; 74 were alive at the time of discharge). HCFA's records indicate 357 deaths within 30 days of admission (275 died while in the hospital, 82 died after discharge).

Also, in reviewing the material as supplied by HCFA, two other factors should be noted. First, a high number of mortality cases came to the Medical Center from nursing homes or other extended care facilities. While this factor, in and of itself, may not be significant, it does suggest a population requiring daily medical supervision outside of the acute care setting.

Secondly, a high percentage of the mortality cases came to the Medical Center with multiple system conditions. A multiple system is defined as conditions that effect two or more major body systems (i.e., heart, lung, nervous, digestive, skeletal and circulatory, etc.) This factor indicates a high severity of illness among the patients recorded which is a factor your agency concedes is not included in developing the predicted mortality ranges.

Despite these concerns, in all categories Baptist Medical Center's mortality rates fell within the predicted mortality ranges supplied by HCFA. In fact, in 11 of 17 categories the Medical Center's mortality rates were in the lower half of the predicted ranges. This rate was achieved despite the fact that Medicare cases included in the HCFA report had a high severity of illness as noted above.

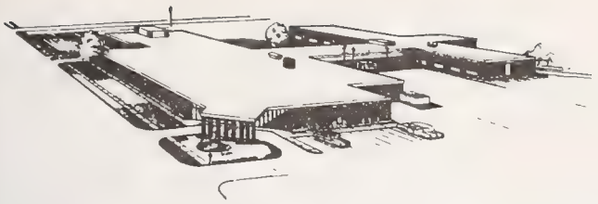
The six categories where the Medical Center's mortality rates were within the upper portion of the predicted ranges were reviewed in depth. In these six categories, 94.4% of the patients suffered from multiple system involvement as defined earlier. Indeed, in two of the categories, (Urologic disease and Sepsis), all 31 patients (100%) were classified as having multiple system involvement and 22 patients (71%) were transferred from nursing homes. In the remaining four categories (Gastrointestinal catastrophe, Gastrointestinal disease, Severe chronic heart disease, and Pulmonary disease), 54% (71 patients) of the reported mortalities were admissions from nursing homes with 93% (122 patients) having multiple system involvement.

Again, despite concerns with aspects of the report's methodology, Baptist Medical Center has reviewed the data supplied as a part of its ongoing quality assurance activity. This report will be shared with the Medical Center's governing board and medical staff departments and committees. Baptist Medical Center appreciates the opportunity to comment on the data provided prior to its public release.

Sincerely,

Dennis L. McClatchey
Senior Vice President - Operations
Baptist Medical Center

DLM/dj



Cameron Community Hospital, Inc.

1015 WEST FOURTH
CAMERON, MISSOURI 64429
TELEPHONE (816) 632-2101

MEDICARE PROVIDER #26-0057

October 27, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
6325 Security Boulevard
Baltimore, Maryland 21207

Dear Dr. Roper:

The Medical Care Evaluation Committee of the Medical Staff of Cameron Community Hospital has completed an indepth review of the Mortality Statistics provided on our hospital by the Health Care Finance Administration and offer the following observations:

HOSPITAL - 260057 Cameron Community Hospital Cameron, Mo. 64429

DEATHS INCLUDING THOSE 30 DAYS POST DISCHARGE	DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	HCFA RANGE OF PREDICTED MORTALITY RATES
82	ALL CAUSES	496	17%	10 to 19%
13	CA-Cancer	20	65%	19 to 63%
5	CE-CVA's	8	63%	9 to 64%
0	EY-Ophthalmologic Disease	1	0%	0 to 100%
5	GC-GI Catastrophes	6	84%	5 to 45%
3	GI-GI Disease	68	5%	1 to 16%
4	GU-Urologic Disease	31	13%	4 to 30%
0	GY-Gynecologic Disease	2	0%	0 to 100%
5	HL-Low-Risk Heart Disease	41	13%	1 to 19%
5	HM-Severe Chronic Heart Disease	17	28%	8 to 53%
9	HS-Severe Acute Heart Disease	19	48%	20 to 66%
2	ME-Metabolic/Electrolyte Dist.	20	10%	3 to 50%

DEATHS INCLUDING THOSE 30 DAYS POST DISCHARGE	DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	HCFA RANGE OF PREDICTED MORTALITY RATES
0	OP-Orthopedic Disorders	14	0%	0 to 61%
14	PN-Pulmonary Disease	51	28%	13 to 41%
3	RN-Renal Disease	9	34%	10 to 86%
1	SE-Sepsis	5	20%	12 to 82%
1	TR-Severe Trauma	17	6%	2 to 36%
12	UN-All Other Codes	168	8%	No Prediction

On further review of our medical records we find that the average age of Medicare patients is 81 years old and the average Medicare patient has 2.2 diseases in addition to the principle diagnosis for treatment.

Cameron Community Hospital is a 57 bed not-for-profit acute care hospital that serves a rural and predominately elderly population. Our hospital admits many patients from the six nursing homes in our service area. The hospital also has the only physician staffed Emergency Room in our service area. Studies have shown that these two characteristics will increase a hospital's mortality rate. In fact, 34 of the recorded deaths were patients transferred from nursing homes, four were transferred from urban hospitals in a terminal state and 31 were admitted through the emergency room. Of the recorded deaths, 38 had "do not resuscitate" orders in the chart.

Cameron Community Hospital is genuinely interested in maintaining quality medical care. The hospital has an ongoing quality assurance program that is quite active. The program involves monitoring of all aspects of medical care. Included in the quality assurance monitoring process is the review of all deaths that occur in the hospital by the Medical Staff Medical Care Evaluation Committee. The review process is problem focused and potential problems are dealt with promptly.

Cameron Community Hospital appreciates the opportunity to comment on the Health Care Finance Administration's published mortality rates. In closing we would paraphrase the statement in your cover letter ... Until we have developed additional statistical measures to deal with complex issues such as severity of illness, we can not and do not recommend the use of this information by itself to make judgements about the quality of care in an individual hospital or to make comparisons among hospitals.

Sincerely,

CAMERON COMMUNITY HOSPITAL, INC.

Robert A. Goldsbury
Administrator

RAG/rn

Carroll County Memorial Hospital
Carrollton, Missouri

Provider Number: 26-0067

The hospital's comments consisted primarily of annotations to the patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish the comments because of the numerous patient identifiers contained in the data.

AMI Columbia Regional Hospital

October 22, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health & Human Services
Baltimore, MD 21207

Re: HCFA Mortality Data
Columbia Regional Hospital
Medicare Provider #260178

Dear Dr. Roper:

After reviewing the hospital specific mortality data sent to us on September 21, 1987, we have the following comments:

1) Two dates of discharge/death were inaccurate. [redacted] One was overstated by a day, and the other was understated by a day.
2) Our facility was <u>below</u> the predicted rate for "All Cases", "Cerebrovascular Accidents", and "Urologic Diseases", and we were within the predicted ranges for all other classes. Nevertheless, when predicted ranges are "20%-80%" or "10% to 90%", or worst case "0% to 100%", the validity of <u>any</u> conclusions - Pro or Con - is suspect.
3) When a sample is <u>very</u> small, the statistics have little validity. If only one case were treated in a category, then 0% and 100% are the only possibilities, and neither has meaning. Any category with less than 20 discharges should be considered with great caution.
4) A correction must be made which recognizes the differences in broad groups of facilities. Our facility receives 76% of its admissions from outside our county, and provides little "primary care" (and no "family practice"). The condition of patients admitted to our facility is generally worse than average and much worse than is typical of our mid-western rural counterparts. This is evidenced by our current case mix index of 1.300, 30% greater than the national average. Facilities cannot be appropriately compared if they do not share comparable demographics.

5) Our facility conducts ongoing medical and surgical case review to monitor quality of care on a concurrent basis. Our dedication to quality is well evidenced by our commitment to accreditation by the Joint Commission on Accreditation of Hospitals (JCAH). We also support the dissemination of <u>meaningful</u> quality-of-care information to consumers, but have grave reservations as to the value of this mortality data.

Thank you for the opportunity to respond in this manner.

Respectfully,

R.E. Mabry, President
and Chief Executive Officer

lp

HUGH ARANT
ADMINISTRATOR

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Cooper County Memorial Hospital
R. R. #1 P. O. BOX 88 BOONVILLE, MISSOURI 65233 PH 816/882-7461

COMMENTS ON THE HCFA MORTALITY DATA

COOPER COUNTY MEMORIAL HOSPITAL
BOONVILLE, MISSOURI
Medicare Provider #260004

DATA VERIFICATION

The data used by HCFA indicate that 58 Medicare patients from a total of 361 admitted to Cooper County Memorial Hospital died within 30 days of admission. Of these, 49 died while still a patient of the hospital, while 9 died after being discharged or transferred. Our own records indicate that 508 acute care Medicare admissions occurred in 1986. In addition, another 75 Medicare SNF admissions occurred in 1986. Presumably the discrepancy in data used by HCFA versus CCMH's data reflects multiple admissions of individual beneficiaries to CCMH or different hospitals. It is impossible for the hospital to evaluate the data for the 9 patients dying after discharge who may in fact be alive, as information concerning death after discharge is not included in the patient's medical record. It is known that of the 9 cases, 2 left Cooper County Memorial Hospital against medical advice, 1 was transferred to a Veterans hospital and 6 were discharged alive to nursing homes.

Without detailed information concerning the billing data available to HCFA, in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

INTERPRETIVE REMARKS

In one of the diagnostic categories, Cooper County Memorial Hospital's actual mortality rate falls outside of the range of the predicted mortality rate. Note: Diagnostic category of S E-Sepis showing a mortality rate of 100% based upon 1 case as compared to a predicted mortality range of 3 to 99%. It should be noted, also, that the quality assurance committee of Cooper County Memorial Hospital has reviewed this case and it is the opinion of this committee that based upon its medical record review of this case that: (a) statistically one case is not enough of a sample on which to make an analysis; (b) that this 90 year old patient did receive unique services at Cooper County Memorial Hospital, based upon the complexity of the multiple diagnosis of this patient. History is as follows: Admitted on 12/06/86 with febrile illness, secondary to urinary tract infection, exacerbation of chronic renal failure, post cerebrovascular accident with massive residual neurological deficit, arteriosclerotic heart disease, diabetes and septicemia. This person was transferred to a nursing home in stable condition on 12/11/86.

EQUAL ACCESS PROVIDER - EQUAL OPPORTUNITY EMPLOYER

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

OTHER REMARKS

Quality of care is of the utmost concern of Cooper County Memorial Hospital, governing board, management, medical staff and employees. Development of meaningful criteria and measurements of quality of care is essential. Correct interpretation of such data is imperative. The ability of model used in HCFA's data collections to demonstrate difference in quality has never been evaluated. Such factors as actual relationship between age, or any of the factors used in the model and the risk of death have not been disclosed by HCFA. Even HCFA has stated that the model's inability to take severity of illness into consideration is its greatest weakness.

It is noted that mortality rate published by HCFA should not be confused with an in patient mortality rate. HCFA's mortality rates are based upon Medicare recipients, not total in-patient admissions. To accurately predict the number of patients who will die (mortality rate), where only a small number of patients are admitted in the diagnostic category, is extremely difficult and meaningless.

In summary, while we understand HCFA's desire to publish mortality information we are concerned with the model that is used to compile that data. We are also concerned with the inclusion of deaths, within 30 days of the last admission, without consideration being given to the sum of all the diagnosis of that individual in interpreting that data.

Finally, we believe that this data should not be interpreted from the point of view that hospital treatment, in someway, led to the death of the patient that otherwise would not have occurred.

Sincerely,

Hugh Arant

Hugh Arant, Admin.

HA/lps

DePaul Health Center

12303 DePaul Drive
Bridgeton, Missouri 63044
Saint Louis County
(314) 344-6000

DePaul Acute Care Division
St. Vincent's Psychiatric Care Division
St. Anne's Long-Term Care Division

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Attention: HSQ-148-GNC
P.O. Box 26676
Baltimore, Maryland 21201

Re: HCFA Mortality Data

Dear Doctor Roper:

We have reviewed the selected 1986 mortality information for DePaul Health Center. The data appears correct for the 254 total deceased Medicare beneficiaries, 210 of whom died in the Health Center. Another 57 patients were separately listed as having died after discharge but 13 actually died in the Health Center and are included in the aforementioned 210. Their names and identification are provided on a separate, accompanying sheet. The short response time to this data, however, has not permitted us sufficient time to retrieve from the Bureau of Vital Statistics their exact cause of death to determine whether it was related to their prior hospitalization.

We acknowledge that our actual mortality falls within the predicted mortality rates for all causes as well as those 16 categories which were specifically selected. The severity and complexity of illnesses treated at DePaul have increased each year since the prospective payment system was first instituted. This can be attributed to an increased aging population and the recognition that DePaul is a regional referral center for complex problems such as heart, orthopedic, lung disease and cancer.

Of the total of 210 patients who died at DePaul Health Center, the average age of this group was 78 years. While these patients succumbed to a variety of illnesses, 56% also had heart disease, 34% severe lung disease, 27% cancer, 15% strokes and 13% kidney failure. All 210 of these patients had a variety of diseases or complications from which death could reasonably be expected.

William Roper, M.D.
October 27, 1987

Re: HCFA Mortality Data

Forty-four patients died after being discharged from DePaul. Twenty-one of these patients were transferred to a nursing home after leaving DePaul, two were sent to other health care facilities and five were in need of and provided with home health care services. Some, who had terminal conditions, were sent home at their request. The average age of this group was 80 and all had conditions in which death can be an expected outcome.

Deaths and death rates, as well as a variety of other medical data, have been regularly and comprehensively reviewed at DePaul for many years and have always fallen within predicted ranges. Despite this fact however, unusual, unexpected or sudden deaths have a focused and critical review in our Quality Assurance program, and are compared to established standards of care. Changes are made by the Medical Staff and by our Board of Trustees, where opportunities exist to improve care.

The assurance of quality is of utmost concern to the Medical Staff and Board of Trustees at DePaul Health Center. Therefore, other important aspects of quality are also continuously reviewed such as the prevention and treatment of infections, the necessity and appropriateness and quality of surgery performed, the use of blood products, medications and antibiotics and the necessity and the quality of various treatments and tests performed.

In addition, DePaul, to our knowledge, will be the first hospital in Missouri to have installed the nationally recognized Medisgroups Severity of Illness System which will further enhance our ability, in a state-of-the-art fashion, to monitor the quality of services provided. Quality and appropriateness of care cannot be fully evaluated unless the severity of illness is also taken into consideration. This is particularly true in reviewing mortality statistics.

Yours truly,

Frank A. Petrich

Frank A. Petrich
President

/bsg

Attach.

DEPAUL HEALTH CENTER
BRIDGETON, MISSOURI

CONFIDENTIAL

DATA

Of 57 patients who supposedly died after discharge, 13 patients actually died in DePaul Health Center (Hospital ID number, 260104), the date of death being incorrectly listed on the mortality sheet.

The 13 patients and their identification are listed below:

	PATIENT ID NUMBER (HIC)	NAME	DIAGNOSTIC CATEGORY	DISCHARGE DATE	RETURN DPHC DATE	CORRECT DEATH DATE
1.	[redacted]		CA	07/22		07/22
2.			GI	12/13		12/13
3.			HM	09/08		09/08
4.			PN	03/09		03/09
5.			UN	03/29		03/29
6.			GU	11/28		11/28
7.			HM	11/22		11/22
8.			CA	07/31	*07/31	08/03
9.			UN	12/24		12/24
10.			RN	03/27	*03/27	04/02
11.			PN	03/03	*03/03	03/14
12.			CA	03/06	*03/06	03/09
13.			UN	03/05	*03/20	03/21

*Our records indicate that while discharge dates are correct from DePaul, these patients were returned after nursing home placement later to die in DePaul Health Center.

DOCTORS
REGIONAL
MEDICAL
CENTER

621 Pine Boulevard
Poplar Bluff, MO 63901
(314) 686-4111

October 27, 1987

William L. Roper, M.D., Administrator
Department of Health and Human Services
Health Care Financing Administration
P.O. Box 26676
Baltimore, Maryland 21207

Dear Dr. Roper:

RE: Mortality Data
Provider No. 260119

On behalf of the hospital industry I want to express my appreciation to you for the opportunity to respond to the mortality information that your agency plans to publish in December, 1987.

This response is on behalf of Doctors Regional Medical Center which is a 230-bed rural regional referral center. The Medical Center is a full service acute care facility operating in a rural setting with referrals from outlying smaller rural hospitals. It operates three Advanced Life Support ambulance services within three counties surrounding the Medical Center. For the year that statistics were last available, 60.8% of the admissions to the Medical Center were from outside the city of Poplar Bluff. Thus you can see we depend to a large degree upon referrals. These referrals impact the severity of illness levels of the patients who are admitted to the Medical Center. Many of the patients are critical or terminally ill when they are received at the Medical Center. The service area has a severe shortage of nursing home beds and skilled nursing beds resulting in the Medical Center's treatment of a higher percentage of terminally ill patients.

In analyzing the data I received from you I find that of the sixteen diagnostic categories, Doctors Regional Medical Center exceeded the estimated range of mortality rates in only one category -- cerebrovascular accidents. The actual death rate exceeded the estimated range by only one percent.

There were 202 cases listed on the Medical Center mortality list which included the names of 45 patients (or 22.3%) who expired post-hospitalization. When a patient expires, the HCFA uses the diagnosis that was listed as the reason for admission to the Medical Center as the cause of death. The diagnosis that is used as the reason for admission is not always the stated cause of death as will be shown later in this response. Also, when a patient expires post-hospitalization, the hospital has no way of knowing the cause of death;

i.e., car accident, fall, etc. The use of the admission diagnosis as the cause of death in this report places very questionable limitations on the accuracy of the mortality data.

The HCFA data lists 25 patients as having expired as a result of cerebrovascular accidents. An analysis of these 25 patients reveals that:

- Eight patients were unresponsive on admission and expired within 24 hours.
- Two patients were unresponsive on admission and expired within 28 hours.
- Seven patients had a different diagnosis listed as the cause of death by the attending physician.
- Three patients expired post-hospitalization and the cause of death is unknown.

The age of the patients is another factor that was not properly considered in your report. The age factor of the cerebrovascular accident deaths is as follows:

Age	
50 - 59	1 patient
60 - 69	2 patients
70 - 79	6 patients
80 - 89	12 patients
90+	4 patients

According to the 1980 census reports, Missouri ranked sixth in percentage of population 65 years of age and over. This is reflected in the age of the patients who expired from cerebrovascular accidents. There were 16 patients over the age of 80. This represents 64% of the total deaths in this category.

In conclusion, this data should be re-analyzed due to its questionable validity prior to its release to the public. The data has been forecast in such a manner as to project whatever results the reader wishes to derive from them rendering them meaningless in drawing any definite conclusions. Each death within a hospital is reviewed by the PRO to determine quality of care rendered. If the quality of care does not meet or exceed the PRO standards, there are sanctions placed on the hospital. In view of these PRO reviews, I have to question the purpose and expense involved in publishing information of questionable validity.

Sincerely,

Harold Boyer

Harold Boyer
Administrator

ESCH

EXCELSIOR SPRINGS CITY HOSPITAL & CONVALESCENT CENTER

Hwy. 69 at Jesse James Road
P.O. Box 398
Excelsior Springs, Missouri 64024
816 / 637-6081

October 26, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

FROM: Excelsior Springs City Hospital
Provider Number: 260029
Highway 69 at Jesse James Road
P.O. Box 398
Excelsior Springs, Missouri 64024

RESPONSE TO HOSPITAL MORTALITY INFORMATION:

On behalf of the Excelsior Springs City Hospital I am responding to the mortality data that are to be published in December 1987. The statistics provided Excelsior Springs City Hospital regarding the 1986 mortality data from Health Care Financing Administration (HCFA) do not portray the total picture.

HCFA has established a predicted mortality rate of 11 - 21% for all causes of death irregardless of diagnosis. Excelsior Springs City Hospital's actual mortality rate for 1986 was 16%, which places the hospital well within the accepted norm. This number is especially impressive when one considers the fact that the hospital serves a rural, largely aged population. In fact, the average age of those in the mortality group was 84. The concentration of elderly patients is also higher due to the 60-bed Skilled Nursing Home Facility attached to the hospital. In many of these cases, due to the advanced age and the presence of several life-threatening problems, families request only symptomatic and supportive treatment be given.

Because we are a small hospital the percentages will appear skewed, for example renal disease with only 5 patients being treated, resulting in 3 mortalities. One death more or less results in a 20% swing in the mortality rate. Of the 47 deaths

that occurred in 1986, 35 patients were in the high risk group, 2 were in the low risk group and 10 were in the unknown category. Unfortunately, the 10 placed in the unknown category were not assigned to either group, the high risk or low risk, as they died after they left the facility.

When reviewing these statistics one must also keep in mind that only medicare patients are represented. These patients are naturally older then the general population and the figures do not address the hospital's overall success rate.

Sincerely,

Jack L. Ferguson

Jack L. Ferguson, Administrator
Excelsior Springs City Hospital

DR. A. J. SIGNORELLI, M.D.-ACHA
EXECUTIVE MEDICAL DIRECTOR

ANDREW J. SIGNORELLI, B.S.-M.H.A.
ADMINISTRATOR

Faith Hospital

OLIVE STREET AND MASON ROAD
ST. LOUIS, MISSOURI 63141
434-0600

October 23, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

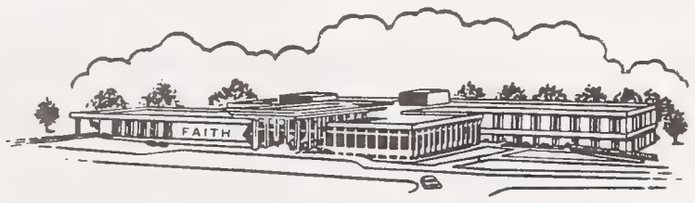
This hospital is a 132 bed medical-surgical facility serving families in St. Louis County.

The death rate information you recently supplied has been analyzed by the Chief Executive Officer, department heads, members of the medical staff and me. We agree with you that mortality rates alone are not a complete measure of the quality of care in a hospital; however, we continue to consider it important enough to include the review of every death as part of the regular hospital Quality Assurance Program just as we consider any problem no matter how small, a cause for concern and is dealt with promptly and effectively.

IN 1986, seventy-five percent (75%) of all deaths in Missouri were people 65 or older.

The average age of the patients in this hospital's HCFA Mortality Data Release is 78 years. One should expect a higher death rate among patients of this age largely because elderly patients often have several life-threatening problems at the same time. The patients on our list had an average of four (4) of these and all had two or more.

The most serious problem with the release of hospital specific raw data is the lack of information regarding the severity of the illness at the time of hospital arrival. Obviously those admitted in the terminal stages of their illness are high-risk patients compared to others with the same diagnosis. In our hospital the severity of each patient's illness is determined daily. At the time of admission to this hospital, eighty-none percent (89%) of these patients were either in Category IV (acutely ill--requires assistance to perform all activities of daily living--requires frequent observation, possible need for life saving measures promptly) or Category V (seriously ill--requires complete assistance with all basic needs--requires use of life saving equipment, drugs or treatments).



FAITH HOSPITAL

The American Hospital Association and other organizations are investigating improved methods for evaluating hospital quality. We look forward to receiving reports on these efforts as well as yours.

We pray that the National Press will avoid a cannibalistic approach to the findings forthcoming in your December, 1987 report on this subject. We thank you for this opportunity to cooperate with your office.

Like many others currently reporting, we beg to reserve judgement on the need, cost effectiveness, objectives and goals of this vast undertaking until we are privileged to review your report.

In the meantime, please accept our best wishes for your continued personal and professional happiness and special success in this endeavor.

Sincerely,

William J. Gillespie, M.D.
Executive Medical Director

Enclosures (2)
WG:cp

1986
WITHIN
30 DAYS
POST-DISCHARGE
MORTALITY REVIEW SUMMARY

HOSPITAL ID# 260162

	DIAGNOSTIC CATEGORIES	"Cases" Reported by HCFA	"Cases" Verified by Hospital	Deaths Reported by HCFA	Deaths Verified by Hospital	In-hospital Deaths	Post-discharge Deaths	Cases Requiring Further Review
	HIGH RISK			7	7	0	7	0
CA	Cancer				4	0	4	0
CE	Stroke				1	0	1	0
HS	Severe acute heart				1	0	1	0
HM	Severe chronic heart				1	0	1	0
GC	GI catastrophies				0	0	0	0
ME	Metabolic/electrolyte				0	0	0	0
PN	Pulmonary				0	0	0	0
RN	Renal				0	0	0	0
SE	Sepsis				0	0	0	0
TR	Severe Trauma				0	0	0	0
	LOW RISK = N/A							
EY	Ophthalmologic							
GY	Gynecologic							
HL	Low risk heart							
GF	Gastrointestinal							
GU	Urologic							
OP	Orthopedic conditions							

NOTE:

ALL CASES CLASSIFIED II - IV SOI/IOS ON ADMISSION

ALL CASES CLASSIFIED IV SOI/IOS @ DISCHARGE

ALL PATIENTS ADMITTED TO THIS HOSPITAL ARE GIVEN DAILY SOI/IOS EVALUATION WHICH IS RECORDED IN HOSPITAL RECORDS.

ALL PATIENTS WERE HIGH RISK = SHORT LIFE EXPECTANCY.

1986 ANNUAL

MORTALITY REVIEW SUMMARY

HOSPITAL ID# 260162

	DIAGNOSTIC CATEGORIES	"Cases" Reported by HCFA	"Cases" Verified by Hospital	Deaths Reported by HCFA	Deaths Verified by Hospital	In-hospital Deaths	Post-discharge Deaths	Cases Requiring Further Review
	HIGH RISK	26	26	26	26	21	7	0
CA	Cancer	7	7	7	7	3	4	0
CE	Stroke	2	2	2	2	0	1	0
HS	Severe acute heart	4	4	4	4	3	1	0
HM	Severe chronic heart	3	3	3	1	2	1	0
GC	GI catastrophies	1	1	1	1	0	1	0
ME	Metabolic/electrolyte	0	0	0	0	0	0	0
PN	Pulmonary	3	3	3	3	3	0	0
RN	Renal	1	1	1	1	1	0	0
SE	Sepsis	0	0	0	0	0	0	0
TR	Severe Trauma	0	0	0	0	0	0	0
	LOW RISK							
EY	Ophthalmologic							
GY	Gynecologic							
HL	Low risk heart							
GI	Gastrointestinal	1	1	1	1	1	0	0
GU	Urologic							
OP	Orthopedic conditions							
UN		4	4	4	4	3	1	0

Farmington Regional Medical Center
FIRST, THE PATIENT.

October 28, 1987

Dr. William L. Roper, Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

Please accept my apologies for the delay in responding to the release of mortality data for Farmington Regional Medical Center.

Farmington Regional Medical Center is a 130 bed, fully accredited hospital located approximately 60 miles from St. Louis. The Hospital was opened in 1969 and has provided high quality care to residents of this area for the years since its opening. During this period of time we have been carrying on various and sundry activities to assure the quality and level of care provided is the best that can be provided and we are confident that we have fulfilled that commitment. Throughout the course of our existence we have had a strong medical staff and an excellent nursing staff which have provided the kind of care that we would like to see provided here.

Our normal activity through Farmington Regional Medical Center is very heavily influenced by the older age population of the area and some 65% of our patient days and activity is with Medicare patients. In reviewing the information included with your release of mortality data I have determined through our own records that information included in your release letter is substantially correct. We found only a couple of minor differences in the date of admission, in each case was a one day difference and in one case the date of death was one day different. We saw no reportable discrepancies that reflected adversely on the information.

On the form entitled diagnostic category then with column headings of cases actual mortality rate and range of predicted mortality rates I find that we are in a very favorable position in all categories with some being on the very low side of the range of predicted mortality rates.

Again, I apologize for the delay in responding to this release of information, however, I feel that Farmington Regional Medical Center is in a good position as far as the data provided.

Sincerely,

William D. Blair

William D. Blair
Administrator

1101 WEST LIBERTY FARMINGTON, MO. 63640 (314)756-6451

VHA
Member of
Voluntary Hospitals
of America Inc.

ELLIS FISCHEL
State Cancer Center
GOVERNED BY THE MISSOURI STATE CANCER COMMISSION

October 6, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

I am in receipt of your advisory concerning Health Care Financial Administration's plan to publish selected mortality information. To the degree that we can understand the methods you have used to arrive at such data, we presume it to be correct. However, as a mission oriented cancer hospital that agressively treats a large number of patients in a very advanced stage of their disease, we heartily concur with the statement in your letter quoted as follows:

"While we believe that information on hospital mortality rates is useful, until we have developed additional statistical measures to deal with complex issues such as severity of illness, we can not and do not recommend the use of the information by itself to make judgments about the quality of care in an individual hospital or to make comparisons among hospitals."

We are very supportive of efforts to provide means to recognize and sustain quality care in individual hospitals.

Very sincerely,

Ronald G. Vincent

Ronald G. Vincent, M.D.
Director

RGV:nh

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Heartland
Health System, Inc.

Date: October 13, 1987

To: William Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services ATTN: HSQ-148-6NC
P.O. Box 26676
Baltimore, MD 21201

From: Mr. Gary White, Executive Vice President

Subj: HCFA Mortality Report: Heartland Hospital East, St. Joseph, MO 64506 (260090)

The mortality report from HCFA indicates that a total of 282 Medicare patients, who were admitted to Heartland East in 1986, died within 30 days of admission. Of this number, 221 patients died while hospitalized, and 61 died after discharge from our hospital.

The HCFA mortality predictions for our hospital are based upon 2,549 Medicare cases. Our records indicate that 3,916 Medicare discharges occurred during 1986. This discrepancy, resulting from HCFA's use of last-admission data only, does not reflect medical information for those patients with multiple admissions to our hospital or to other hospitals and care facilities.

Our hospital has no way of verifing the number of Medicare patients who were treated or died at other hospitals, or facilities, or in the home. It is impossible to determine if the 61 deaths reported after discharge from our hospital, have in fact died, because information concerning death after discharge from a hospital is not part of a patient's medical record information.

Additionally, without detailed information concerning the billing data that was available to HCFA in computing the predicted mortality rate, it is not possible to verify the accuracy of the diagnostic or other data used to produce the report.

Although all of the diagnostic mortality rates listed for our hospital are within HCFA's predicted range, it should be noted that we treat a large number of Medicare beneficiaries. An inordinately high percentage of elderly patients can result in higher than expected death rates in conditions that are common to the elderly.

Additionally, over 42% of the Medicare deaths that are listed in the HCFA report are patients over 80 years olds, and 11% are over 90 years old. Also, 20.5% of our 1986 Medicare patients who died in the hospital had two or more admissions during 1986. These statistics clearly reflect the seriousness of our patients' conditions, however, this important information is not represented within the HCFA mortality data.

Thank you for the opportunity to comment.

Sincerely,

Gary White

cc: Missouri Hospital Association

801 Faraon Street St. Joseph, Missouri 64501 816-271-7991

Heartland
Health System, Inc.

Date: October 13, 1987

To: William Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services ATTN: HSQ-148-6NC
P.O. Box 26676
Baltimore, MD 21201

From: Mr. Gary White, Executive Vice President

Subj: HCFA Mortality Report: Heartland Hospital West, St. Joseph, MO 64501 (260006)

The mortality report from HCFA indicates that a total of 239 Medicare patients, who were admitted to our hospital in 1986, died within 30 days of admission. Of this number, 189 died while hospitalized, and 50 died after discharge from the hospital. One death could not be identified as our patient. I have attached a copy of the printout indicating the unconfirmed patient.

The HCFA mortality predictions for our hospital are based upon 1,879 Medicare cases. Our records indicate that 2,751 Medicare discharges occurred during 1986. This discrepancy, resulting from HCFA's use of last-admission data only, does not reflect medical information for those patients with multiple admissions to our hospital or to other hospitals and care facilities.

Our hospital has no way of verifing the number of Medicare patients who were treated or died in other hospitals or facilities, or in the home, and it is impossible to determine if the 50 deaths reported after discharge from our hospital, have in fact died, because information concerning death after discharge from a hospital is not part of a patient's medical record information.

Additionally, without detailed information concerning the billing data that was available to HCFA in computing the predicted mortality rates, it is not possible to verify the accuracy of the diagnostic or other data used to produce the report.

Although all of the diagnostic mortality rates listed for our hospital are within HCFA's predicted range, it should be noted that we treat a large number of Medicare beneficiaries. An inordinately high percentage of elderly patients can result in higher than expected death rates in conditions that are common to the elderly.

Also, over 45% of the Medicare deaths listed in the HCFA report are patients over 80 years old, and 10% are over 90 years old. Additionally, almost 27% of our Medicare patients who died in the hospital had two or more admissions during 1986. These statistics clearly reflect the seriousness of our patients' conditions, however, this important information is not represented within the HCFA mortality data.

Thank you for the opportunity to comment.

Sincerely,

Gary White

cc: Missouri Hospital Association

801 Faraon Street St. Joseph, Missouri 64501 816-271-7991

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

INCARNATE WORD
HOSPITAL
3545 Lafayette Avenue ■ St. Louis, MO 63104 ■ (314) 664-6500
A Member of the Incarnate Word Health System.

October 15, 1987

William Roper, M.D.
Administrator
Health Care Financing Administration
Dept. of Health and Human Services
PO Box 26676
Baltimore, MD 21201

Dear Dr. Roper:

We have reviewed the statistical data submitted to our Hospital and have found a number of errors. Attached as Addendum I is the correction of the data. We question the reliability of this "sophisticated statistical analysis" of hospital billing data to infer the relationship between quality of care and mortality data.

The following issues become evident as one reviews the data used to generate the report and the model used to categorize Medicare mortality information.

1. The principle diagnosis listed on the billing information may be mutually exclusive of the cause of death. The patient may die during the hospital stay or within 30 days of discharge, due to a different diagnosis.

Example: The patient admitted with gallbladder disease dies of myocardial infarction. The principal diagnosis during hospital stay is gallbladder disease, not myocardial infarction. The patient admitted with an infected finger due to a splinter dies of CVA during the admission. The principal diagnosis is infected finger not CVA. PRO regulations require "edits" of principal diagnosis. Example: the patient who is admitted with colon cancer resulting in dehydration must be assigned a principal diagnosis of dehydration, not colon cancer according to PRO directive. He may subsequently die of his colon cancer in the thirty day interval after discharge.

2. The hospital billing data cannot account for the severity of the illness. Hospitals with disproportionate numbers of poor socioeconomic patients will have a higher mortality rate since the patient's previous health care, nutrition, etc. cannot compare with the patient admitted to hospitals in more affluent areas. This is very apparent in large urban areas, where city versus

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

county and private versus public hospitals are involved. The mortality rate may therefore be related to the patient treated, not the treatment.

3. The reliability of statistics that include patients who die after discharge during the thirty day period is suspect. Accuracy of death certificate information particularly complicating conditions is questionable, hence, comparison of diagnostic categories on the billing information provided at the patient's discharge, may not be comparable to the physician's diagnosis on the death certificate.

4. The sixteen categories of diagnosis, i.e. "medical conditions" appear to be very broad. The possibility that patients' conditions could necessitate assignment to more than one category is probable. Example: The patient admitted with fractured femur and total hip replacement dies of a pulmonary emboli. The principal diagnosis is hip fracture, but the cause of death is pulmonary emboli. Are these really comparable?

HCFA's attempt to correlate mortality information with the quality of care provided by the Hospital is misleading to the consumers and public. The model does not consider the many other factors which have major impact on mortality rates. We therefore feel the release of such information to the public constitutes a disservice since the very nature of the information and its collection is significantly prone to error.

Sincerely

Steve Hunter, Vice President
Professional Services

rk

encl

c Senators
Representatives
Missouri Hospital Association
Hospital Association of Metropolitan St. Louis

Addendum I

CORRECTED MORTALITY INFORMATION HOSPITAL ID NUMBER 260054

	PATIENT ID NUMBER	SUR-NAME	GIVEN DATE OF ADMISSION	ACTUAL DATE OF ADMISSION	GIVEN DATE OF DISCHARGE	ACTUAL DATE OF DISCHARGE	GIVEN DATE OF DEATH	ACTUAL DATE OF DEATH
1.	[redacted]	[redacted]	12-01-86	12-07-86	12-06-86	12-28-86	12-28-86	same
2.	[redacted]	[redacted]	10-19-86	same	10-23-86	same	10-24-86	10-23-86
3.	[redacted]	[redacted]	11-6-86	same	11-09-86	same	11-30-86	11-09-86
4.	[redacted]	[redacted]	02-03-86	same	02-08-86	same	02-14-86	02-08-86
5.	[redacted]	[redacted]	03-05-86	same	03-09-86	same	03-31-86	03-14-86
6.	[redacted]	[redacted]	02-24-86	03-23-86	03-14-86	03-23-86	03-24-86	03-23-86
7.	[redacted]	[redacted]	11-11-86	same	11-14-86	same	11-30-86	11-14-86
8.	[redacted]	[redacted]	03-25-86	same	04-01-86	same	04-02-86	04-01-86

MO 61.2

Lafayette
REGIONAL HEALTH CENTER

Fifteenth and State Streets
Lexington, Missouri 64067
(816) 259-2203

October 26, 1987

COMMENTS ON HCFA MORTALITY DATA

Lafayette Regional Health Center
Medicare Provider Number: 260063

Data Verification

The data used by HCFA indicate that a total of 28 Medicare patients admitted to Lafayette Regional Health Center during 1986 died within 30 days of admission, either while hospitalized or after discharge from the hospital. Nineteen patients died while still in the hospital, while 9 died after discharge. It is impossible to verify the number of the patients who died after discharge as information concerning death after discharge is not included in the patient's medical records. The average age of the patients who died was 81.3 years.

Interpretive Remarks

Lafayette Regional Health Center is pleased to see that our mortality rates for Medicare patients for 1986 are within the normal range of predicted mortality rates as determined by HCFA. We do feel, however, that under no circumstances should they be used as a basis for judging the quality of care provided at our facility.

The HCFA statistics may accurately and reliably reflect the relationship between a small number of patient characteristics and the risk of death, but it does not reliably predict hospital mortality rates. The data fail to consider a wide range of factors with a significant impact on mortality; such as age, severity of illness, stage of illness, health status, available family support and the patient's own desires to not be kept alive by artificial means. Because of these limitations, we feel the statistics may not accurately reflect the care provided at our hospital.

Results of Medical Record Review

As part of our Quality Assurance Program, our medical staff routinely reviews all deaths which occur at our institution to determine if there are any questions regarding quality of medical care. All cases included in our statistics have been reviewed under this process.

Providing quality care is of uppermost concern to the governing body, administration, and the medical staff at our facility. We have an active quality assurance program and routinely monitor the quality of care provided at our institution through mortality review as well as numerous other processes.

LAKE OF THE OZARKS GENERAL HOSPITAL

OUR PATIENTS KNOW WE CARE

October 22, 1987

Medicare Provider #260186

We appreciate the opportunity to review and comment on the statistical information you have gathered regarding our hospital's 1986 mortality rates for Medicare patients. Upon close examination we did find five errors, all concerning patients who were admitted here but were transferred to other facilities for care. (See attached listing and UB-82 information.)

Lake of the Ozarks General Hospital agrees with HCFA's comments that "the information on its own is not a complete measure of the quality of care at an individual hospital... Until we have developed additional statistical measures to deal with complex issues such as severity of illness, we cannot and do not recommend the use of the information by itself to make judgments about the quality of care in an individiual hospital or to make comparisons among hospitals."

Since the maintenance of quality care is a priority with our hospital's governing board, management, and medical staff, we monitor continuously for potential quality problems. Our quality assurance program provides for prompt investigation and corrective action, if indicated. Mortality rate is just one of the indicators used to identify areas for review. Unfortunately, the statistics do not reflect the circumstance and complicating factors needed to adequately judge care. This can only be done through individual case review and analysis which our quality assurance program continues to do. Physicians, as well as trained hospital personnel participate in these indepth reviews, examining the severity of the patient's illness, the treatment they received, and their general health status. In this way we are better able to ensure the quality of patient care rather than simply measure it. Problems identified are cause for concern and are dealt with through the quality assurance program.

P. O. Box 187CB • Osage Beach, Missouri 65065 • 314/348-3181

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

LAKE OF THE OZARKS GENERAL HOSPITAL

OUR PATIENTS KNOW WE CARE

Medicare Provider #260186

Listed are five patients who were admitted to our facility but transferred to another acute care hospital:

Patient	ID# (HIC)	Date of Admission	Date of Discharge
[redacted]		3/05/86	3/19/86
		7/25/86	7/26/86
		11/18/86	11/20/86
		8/26/86	8/26/86
		12/14/86	12/15/86

One error, regarding [redacted], was our fault due to the wrong discharge destination code being put on the Medicare billing (UB-82) form. The other four were coded correctly and we are uncertain as to why these occurred. Please find attached our copy of each above listed patient's UB-82 (billing form) for your review.

P. O. Box 187CB • Osage Beach, Missouri 65065 • 314/348-3181



LAKESIDE
HOSPITAL

caring is our concern

October 21, 1987

William Roper, M.D.
Health Care Financing Administrator
Department of Health and Human Services
P. O. Box 26676
Baltimore, Maryland 21201

Atten: HSQ-148-6NC

Dear Dr. Roper,

In response to the HCFA Medicare Mortality Data received Friday, September 25, 1987, Lakeside Hospital's actual mortality rate of 10% (or 42 deaths--all causes) fell within the range of predicted mortality rates of 9-18% for all causes. The 42 deaths occurred in patients with an average age of 80 and who were suffering from an acute, chronic, or terminal condition such as cancer, CVA heart disease, renal failure, sepsis, pneumonia, gastrointestinal disease, or severe trauma.

According to the data reported, 13 of the 42 deaths occurred post discharge. On analysis of the data, a discrepancy was found and 12 deaths (not the 13 reported) were post discharge or 28% of the deaths occurred outside the hospital.

Of the 12 deaths occurring outside the hospital, the following data was gathered:

- 8% (1 out of 12) died at another hospital. After being discharged from Lakeside on 12/26 after being treated for severe trauma, the patient was transferred to a nursing home. The patient was later sent to another local hospital where death occurred on 1/14. Lakeside was unable to get information on the actual cause of death.

- 17% (2 out of 12) died at home; one patient died from cardiac arrest as a result of metastatic cancer of the lung at the age of 92. The other patient was 97 years old and was receiving Home Health Care. Death was due to cardiac arrest after suffering from heart disease.

- 75% (9 out of 12) died in a skilled nursing facility. All of the patients had varying degrees of self care deficits due to a chronic, terminal, or recovering from an acute condition.

Age	Cause of Death	Health Problems
81	Cardiac arrest	Renal failure, Cancer of the jaw
85	Cardiac arrest	Cancer
65	Cardiac arrest	Stroke
65	Cardiac arrest	Stroke
88	Cardiac arrest	Stroke
87	Cardiac arrest	Pneumonia, renal failure
88	Cardiac arrest	Heart disease
82	Cardiac arrest	Electrolyte, metabolic disorder
65	Cerebral hemorrhage	Cancer

In reviewing the data, I had a few overall concerns and questions regarding the validity of the data. First, if a death occurred at another hospital after discharge, was that death also counted in the other hospital's statistics? If this does happen, certain patients could be listed twice (on two different hospitals' reports). There was also one instance that a patient's date of death was listed as 2/28/87, but was not reported discharged until 3/1/87.

There were two other instances where the date of death on the mortality report differed from the date of death as reported on the Record of Death. On discovering these discrepancies in the data provided by HCFA, I must express concern about the accuracy and validity of the data and urge caution on how this information may be used. Trying to draw conclusions from inaccurate data is in no one's best interest.

Sincerely,

Patricia Williams,
Interim Administrator

PW/jo

AMI Lucy Lee Hospital

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration (HCFA)
P.O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper:

AMI Lucy Lee Hospital is a 200 bed acute care facility servicing a widely dispersed, rural geographic area in a fifty mile circle around Poplar Bluff, Missouri. We offer a full-range of highly specialized, complex services to our patient population due to our isolation from any major metropolitan area and our commitment to our service area to provide convenient, high quality, cost-effective healthcare. Noteworthy, is that approximately fifty percent of our patient population are Medicare beneficiaries.

In the recent release of HCFA's mortality data, our hospital was well within the predicted mortality rates in all categories. Although this is preferrable to exceeding the predicted rates, we recognized that this data has pronounced flaws which certainly causes us to question its validity.

With only a basic knowledge of statistics, I do know that sample size directly impacts accuracy. As a regional referral center for most services, we are performing many of the same procedures/services as major referral centers only with less volume. Less volume does not equate to less acuity. Obviously, higher acuity increases chances for mortality and if distributed over smaller volumes will distort the mortality rate in a given diagnostic category. This is evidenced in our rates for cancer and severe acute heart disease even though we were within predicted rates.

Like many hospitals, we expend a great deal of our resources, as we should, on quality assurance issues including capital equipment funds. I believe our efforts in this regard are substantial and scrutinized closely by our governing board, as well as outside agencies such as the Joint Commission for the Accreditation of Hospitals (JCAH), American Hospital Association (AHA) and your agency (PRO). Our efforts on quality stand on their own and I believe reflect genuine efforts to assure and enhance quality to all our patients. Yet this is not weighted and your agency releases data that is flawed and conceivably could damage the efforts of a quality conscious hospital. My conviction is that our comprehensive quality assurance programs in conjunction with dedicated physicians and hospital staff will maintain our high level of quality versus the release of mortality rates.

2620 North Westwood Boulevard, Poplar Bluff, Missouri 63901 314 785-7721

AMI

As a rural hospital, receiving less Medicare reimbursement for our high acuity patients than urban hospitals, we encourage HCFA to develop more equitable and accurate measures of quality. This should include a provider task force for input. In closing, I can assure you that even though we were within the predicted mortality rates in all categories, we will continue to expand our quality assurance efforts.

Sincerely,

William L. Bradley
Chief Executive Officer

WLB/so

Levering Hospital

1734 Market St. • Hannibal, Missouri 63401 • Telephone (314) 221-6511

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
P.O. Box 26684
Baltimore Maryland 21207

RE: Medicare Provider #260010

Dear Dr. Roper:

Levering Hospital is a 97 bed acute care hospital located in Northeast Missouri with a large percentage of Medicare patients.

A goal at Levering Hospital is to provide quality care to all patients and quality of care is of the utmost concern to our Board, Medical Staff and management.

The American Hospital Association and other organizations, including the Joint Commission, are investigating methods of evaluating hospital quality that rely on measures other than mortality rates. Levering Hospital looks forward to reviewing the results of these efforts. It's been said that mortality data is a gauge of quality of care and a measure of hospital performance. However, we do not feel this is valid. Such data cannot be used directly as a measure of hospital performance.

Thank you for sharing the HCFA Medicare Mortality Data with us before its release to the public. We find three (3) inaccuracies in this data. One patient is listed as expired eleven (11) days after the actual date of death. The other two were transferred from Levering to another hospital for a higher level of care. To insure confidentiality, further information is provided on Attachment.

In all but one of your diagnostic categories, our actual mortality rate falls within the range of the predicted mortality rate. In that one category, Levering is below the predicted rate.

Because we are not a large hospital and, therefore, have a small data base, we feel these statistics can be misleading. This data measures the relationship between a limited number of patient characteristics and the risk of death. Some factors have been taken into account but others have not. One not used in your data, and we realize this is one that is difficult to determine, is severity of illness. An adjustment for this factor could give different results.

We applaud HCFA's efforts to be certain that quality care is being provided to Medicare patients throughout the United States. Please let us know if we can provide you with any added insights on this subject.

Again thank you for sharing this information with us before its public release.

Sincerely yours,

W. Lee/mjm

Woodrow Lee
Administrator

mjm

cc: Charles E. Rendlen, III, Board President
Michael Bukstein, M.D., Chief of Staff
Lynn Walley, M.D., Chairman, Utilization Review
Anne Cary, RN, Patient Review Coordinator

[redacted]	CA	071	M	09/11/86	09/13/86	09/20/86	Transfer to VA, Columbia, MO
	CE	075	M	10/25/86	10/28/86	10/28/86	Transfer to VA, Columbia, MO
	CE	082	F	05/13/86	05/20/86	05/31/86	Expired at Levering 05/20/86

Liberty Hospital **A Regional Medical Center**

2525 Glenn W. Hendren Drive • Liberty, Missouri 64068 • (816) 781-7200

October 19, 1987

William L. Roper, M.D.
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

On behalf of Liberty Hospital I am responding to the data provided related to the release of the mortality data later this year. In that letter you had indicated the desire to receive any correcting information on the data as provided related to Liberty Hospital. The following information is submitted for your review related to a change in the diagnosis on an individual listed in that mortality data: [redacted] diagnostic category [redacted] age 90, sex M, date of admission 12-28-85, date of discharge 1-14-86, date of death 1-14-86, principle diagnosis 5849 should be 038.40, principle procedure 3995. We are happy to provide this corrective data related to the information sent to us. If you should have any further questions, please feel free to contact me.

Sincerely,

Joseph W. Crossett

Joseph W. Crossett
Associate Administrator

JWC:jc

LUTHERAN MEDICAL CENTER
PROVIDER #26-0002

HCFA MORTALITY DATA RELEASE

The HCFA analysis indicates in its report that 1641 Medicare cases were admitted to Lutheran Medical Center during 1986. The actual number of Medicare admissions during 1986 was 2857; a significant difference of 1216 cases.

The number of deaths reported by HCFA was 195. Of this total, 178 expired within 30 days of admission and 17 expired post discharge. These figures are corrected data after review of the HCFA profile that listed 31 deaths occurring post discharge. Ten patients listed as expiring post discharge were never discharged from the facility but were in-house transfers to our Hospice Unit. Nine of the 10 patients were cancer patients and one case listed as pulmonary or lung disease were deemed candidates for transfer to a setting conducive for terminal illness. In addition, one case listed as expiring after discharge, expired on the date listed as discharged. Four cases listed as post discharge deaths were readmitted and expired at Lutheran Medical Center.

Considering the above data, 1641 cases and 178 expiring prior to discharge, the actual mortality rate should be 11%.

The Diagnostic Categories of all cases after review depict the following percentage changes:

	HCFA %	CHANGED
Cancer	32%	28%
Severe Chronic Heart Disease	16%	15%
Severe Acute Heart Disease	33%	31%
Metabolic/Electrolyte	18%	15%
Pulmonary Disease	24%	21%
Severe Trauma	10%	7%

In figuring the above percentages, we excluded those deaths that were actual post discharge deaths. It is noted that our change in some diagnostic areas of percentage rates does not significantly affect our range of Predicted Mortality Rates in

HCFA's listing. There are two categories listed that Lutheran Medical Center falls outside of the range of the predicted mortality rate:

1) Urologic Disease - HCFA's predicted range is 1 to 17% - LMC's mortality rate - 0%. The reason for 0% is there were no cases under this category.

2) Low Risk Heart Disease - HCFA's predicted range is 2 to 110% - LMC's mortality rate - 1%. The majority of LMC"s mortalities are in the High Risk Categories due to the case mix in our area. Most patients fall into the high risk category.

The 17 patients verified as expiring post discharge are listed as follows:

1) Seven patients were transferred and expired at Nursing Homes. Physician office records indicate knowledge of death, however, cause of death unknown.

2) Two patients (a and b) as verified by physician's office gave cause of death as (a) cancer of the lung and (b) pneumonia.

3) Eight patients, cause of death unknown by physician.

The diagnostic categories in which an unusually large percentage of death occurs after discharge is not relevant. The percentage rate in this category was 1%.

The HCFA data indicates high mortality rates for Lutheran Medical Center in the following Diagnostic Categories:

	Highest Range of Predicted Mortality Rate
1) Cerebrovascular Accidents - 26%	41%
2) Cancer - 28%	33%
3) Severe Acute Heart Disease - 31%	53%
4) Sepsis - 45%	69%

It should be noted that although the percentages lean toward the higher predicted range they do not fall outside of the predicted mortality rate. Lutheran Medical Center cases, as noted in the profile, have a greater number of high risk patients. The greatest number of low risk patients are noted under Gastrointestinal Disease with a total of 132 cases. The actual mortality rate, however, was only 5%. The highest range of predicted mortality rates is 11%.

A significant service offered at Lutheran Medical Center that attracts patients with a higher than average expected mortality is our Hospice Unit. This service is designated for terminally ill patients such as cancer patients or patients with other terminal illnessess and whose quality of life can best be maintained in this setting.

Another significant program at Lutheran Medical Center that attracts a higher percentage of patients is the Cardiopulmonary Program. The data indicated a mortality rate of 21% for pulmonary disease and 31% for acute heart disease.

The following is corrected information submitted along with attached comments concerning HCFA data:

A. HCFA Analysis - CA Category or Cancer

1) [redacted] Date of Discharge 10/16/86 - Date of Death 10/31/86
Correction CA - Patient did expire at LMC on 10/16/86 in the Hospice Unit.

2) [redacted] Date of discharge listed as 3/11/86; date of death 3/20/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 3/20/86.

3) [redacted] - Date of discharge listed as 1/28/86; date of death 1/29/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 1/29/86.

4) [redacted] - Date of discharge listed as 9/4/86; date of death 9/5/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 9/9/86.

5) [redacted] - Date of discharge listed as 12/8/86; date of death 12/21/86
Correction CA - Patient readmitted and expired on 12/21/86 at LMC.

6) [redacted] - Date of discharge listed as 7/22/86; date of death 7/31/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 7/25/86.

7) [redacted] - Date of discharge listed as 7/2/86; date of death 7/4/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 7/4/86.

8) [redacted] - Date of discharge listed as 1/29/86; date of death 2/12/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 2/12/86.

9) [redacted] - Date of discharge listed as 7/26/86; date of death 8/2/86
Correction CA - Patient was transferred to Hospice Unit and expired at LMC on 8/2/86.

B. HCFA Analysis - ME Category or Metabolic/Electrolyte Disturbance

1) [redacted] - Date of discharge listed as 7/4/86; date of death 7/7/86
Correction - Patient expired at LMC on 7/4/86.

2) [redacted] - Date of discharge 9/12/86; date of death 9/28/86
Correction ME - Patient was transferred to Hospice Unit and expired at LMC on 9/28/86.

C. HCFA Analysis - PN or Pulmonary Disease

1) [redacted] - Date of discharge 2/4/86; date of death 2/10/86
Correction PN - Patient was transferred to Hospice Unit and expired at LMC on 2/10/86.

D. HCFA Analysis - UN or All Other Conditions

1) [redacted] - Date of discharge 7/13/86; date of death 7/19/86
Correction - Patient expired at LMC on 7/19/86.

2) [redacted] - Date of discharge 4/21/86; date of death 4/24/86
Correction - Patient expired at LMC on 4/24/86.

E. HCFA Analysis - TR or Severe Trauma

1) [redacted] Date of discharge 12/29/86; date of death 1/7/87
Correction - Patient expired at LMC on 1/7/87.

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	24	13	33	4
CE -- Cerebrovascular Accidents	18	0	18	0
GC -- Gastrointestinal Catastrophes	8	0	8	0
GI -- Gastrointestinal Disease	7	0	7	0
GU -- Urologic Disease	0	0	0	0
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	1	0	1	0
HM -- Severe Chronic Heart Disease	13	1	13	1
HS -- Severe Acute Heart Disease	14	1	14	1
ME -- Metabolic/Electrolyte Disturbances	7	5	10	2
OP -- Orthopedic Disorders	1	0	1	0
PN -- Pulmonary Disease	34	4	35	3
RN -- Renal Disease	2	0	2	0
SE -- Sepsis	5	0	5	0
TR -- Severe Trauma	3	3	4	2
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	25	6	27	4
Total -- All Categories				

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

MO 77.5

MENORAH MEDICAL CENTER

October 13, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Re: Selected Mortality Information - 1986
Menorah Medical Center Provider No. 26-0112

Dear Dr. Roper:

We reviewed the enclosed mortality information for Medicare patients treated at Menorah Medical Center in 1986.

The patient, [redacted] was not treated at Menorah Medical Center. A review of our financial records indicates that we received payment, in error, for the individual, which payment was refunded to Medicare.

We would appreciate receiving a clarification concerning patient, [redacted] This patient is listed under the diagnostic category of EY-Ophthalmologic Disease. A review of this patient's record revealed that the patient was discharged from Menorah Medical Center on October 29, 1986, with the principal diagnosis of perforated corneal ulcer, right eye, with endophthalmitis; decubitus ulcers; urinary tract infection; herpes zoster ophthalmicus; status post cerebrovascular accident; osteoarthritis; dementia, senile or post-infarct, and malnutrition. The principal procedure performed was emplacement of Gunderson flap, O.D., plus insertion of internal jugular IV catheter. The patient was DOA at another area hospital on November 12, 1986, with the cause of death being ventricular

EXECUTIVE MANAGEMENT OFFICES
4949 Rockhill Road, Kansas City, Missouri 64110 (816) 276-8101

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

fibrillations with arteriosclerotic heart disease. Please advise as to why this patient was included in Menorah Medical Center's mortality statistics under Ophthalmologic Disease.

We will appreciate your attention to the above matters.

Sincerely,

MENORAH MEDICAL CENTER

Sol Schaengold, J.D.
President

SS/mt
s10929

Enclosure

cc: File
Ursula Charles

MATCHING DOCUMENT

PROVIDER: 260112
CHECK DATE: 03/06/87
CHECK #:0041921
PAGE #: 1

3/11/87

MENORAH MEDICAL CENTER
P.O. BOX 38
DEPT. 86
KANSAS CITY MO 64183

MEDICARE REMITTANCE ADVICE PART A PIP INPATIENT/SNF

	TOTAL DAYS	COV DAYS	NON-COV DAYS	TOTAL CHARGES	COVERED CHARGES	NON-COV CHARGES	PAYER PAID	BALANCING DIFFERENCE	REIMB AMOUNT
[redacted]									
PATIENT NAME: [redacted] MB [redacted] FROM DATE: 01/29/86 THRU DATE: 01/31/86 DISCH CODE: 20									
PAT CNT: [redacted]	-02	-02	00	-4958.17	-4958.17	.00	.00	-555.89	-3910.28
DRG #: 123 DRG AMT: -4402.28 DED.: -492.00 COIN.: .00 LTR: .00 BL. DED.: .00 OUTLIER INDICATOR: 0 ✓RS									
OUTLIER PYMT AMT: .00 OUTLIER DAYS: 00 RET. CD: 00 MSP CD: GRH RED.: .00 DSH: .00 INDIR. TCHG: -56.54									
PAYER CD: Z PRI DIAG: 4280 PASS THRU PER DIEM -68.81 ADJ. CD: IC DAYS: 00 CORO DAYS: 00 DCN: 0287055601381									
REJ CD: X-OVER: M INTEREST: .00 RATE: $412.44									
[redacted]									
PATIENT NAME: [redacted] MF [redacted] FROM DATE: 12/17/85 THRU DATE: 12/27/85 DISCH CODE: 06									
PAT CNT: [redacted]	-10	-10	00	-4687.04	-4587.04	-100.00	.00	-47.31	-4539.73
DRG #: 403 DRG AMT: -4539.73 DED.: .00 COIN.: .00 LTR: .00 BL. DED.: .00 OUTLIER INDICATOR: 0 ✓									
OUTLIER PYMT AMT: .00 OUTLIER DAYS: 00 RET. CD: 00 MSP CD: GRH RED.: .00 DSH: .00 INDIR. TCHG: -58.31									
PAYER CD: Z PRI DIAG: 2050 PASS THRU PER DIEM -68.81 ADJ. CD: IC DAYS: 00 CORO DAYS: 00 DCN: 0287055602361 CA									
REJ CD: X-OVER: M INTEREST: .00 RATE: $412.44									
PA..ENT NAME: [redacted] FROM DATE: 10/10/85 THRU DATE: 10/15/85 DISCH CODE: 01									
PAT CNT: [redacted]	-05	-05	00	-1848.60	-1798.60	-50.00	.00	2018.25	-3416.85
DRG #: 090 DRG AMT: -3816.85 DED.: -400.00 COIN.: .00 LTR: .00 BL. DED.: .00 OUTLIER INDICATOR: 0 ✓									
OUTLIER PYMT AMT: .00 OUTLIER DAYS: 00 RET. CD: 00 MSP CD: GRH RED.: .00 DSH: .00 INDIR. TCHG: -49.02 DP									
PAYER CD: Z PRI DIAG: 486 PASS THRU PER DIEM .00 ADJ. CD: IC DAYS: 00 CORO DAYS: 00 DCN: 0286350610691									
REJ CD: X-OVER: M INTEREST: .00 RATE: $412.44									
PATIENT NAME: [redacted] FROM DATE: 10/10/85 THRU DATE: 10/15/85 DISCH CODE: 01									
PAT CNT: [redacted]	05	05	00	1848.60	1798.60	50.00	.00	-2018.25	3816.85
DRG #: 090 DRG AMT: 3816.85 DED.: .00 COIN.: .00 LTR: .00 BL. DED.: .00 OUTLIER INDICATOR: 0 ✓									
OUTLIER PYMT AMT: .00 OUTLIER DAYS: 00 RET. CD: 00 MSP CD: GRH RED.: .00 DSH: .00 INDIR. TCHG: 49.02 DP									
PAYER CD: Z PRI DIAG: 486 PASS THRU PER DIEM 68.81 ADJ. CD: IC DAYS: 00 CORO DAYS: 00 DCN: 0286350610692									
REJ CD: X-OVER: M INTEREST: .00 RATE: $412.44									
PATIENT NAME: [redacted] MG [redacted] FROM DATE: 08/18/85 THRU DATE: 08/28/85 DISCH CODE: 20									
PAT CNT: [redacted]	-10	-10	00	-9823.21	-9729.94	-93.27	.00	-1577.78	-7752.16
DRG #: 468 DRG AMT: -8152.16 DED.: -400.00 COIN.: .00 LTR: .00 BL. DED.: .00 OUTLIER INDICATOR: 0 SG									
OUTLIER PYMT AMT: .00 OUTLIER DAYS: 00 RET. CD: 00 MSP CD: GRH RED.: .00 DSH: .00 INDIR. TCHG: -104.71 ✓									
PAYER CD: Z PRI DIAG: 3320 PASS THRU PER DIEM .00 ADJ. CD: IC DAYS: 00 CORO DAYS: 00 DCN: 0287055601981									
REJ CD: X-OVER: M INTEREST: .00 RATE: $412.44									

MERCY HOSPITAL

October 26, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Mr. Roper:

Thank you for the opportunity to respond to the mortality information from HCFA prior to its December release. The information provided to us indicates that 381 Medicare patients were considered by HCFA in their study of mortality rates at Mercy Hospital. Of the 381 Medicare patients, 57 died in the Hospital or within 30 days of discharge. This corresponds to an actual mortality rate of 15%. For 1986, Mercy Hospital had 665 Medicare discharges with 50 deaths for a mortality rate of 8%. The difference is due to HCFA including deaths within 30 days of discharge and only counting the last admission of a patient to the Hospital (excluding multiple admissions).

The information also contains one minor error. [redacted] was discharged on 9/19/86, not 9/15/86 as stated.

The HCFA model as applied to Mercy Hospital indicates that the actual mortality rates in two diagnostic categories are at or exceed the upper limit of the predicted mortality range for those areas. Our review of these deaths suggested two significant factors which contributed to the "high" mortality rates as compared to the HCFA model. In the cancer diagnostic category (CA), the medical records indicated that each patient was admitted to the Hospital with a terminal condition. The care of these patients focused on pain management and general palliative care. In the sepsis diagnostic category (SE), all the patients were admitted to the Hospital in a critical condition with death a significant possibility. Overall, the outcomes in the two diagnositc categories were expected or a significant possibility based on the patient age and condition at admission.

P.O. BOX 528, MANSFIELD, MISSOURI 65704 • (417) 924-3281
Mercy Hospital, a Sisters of Mercy health ministry, is an equal opportunity/affirmative action employer and provides services and benefits without discrimination.
Sponsored by The Sisters of Mercy

I hope this additional information assists you and the public in understanding Mercy Hospital's mortality data. I welcome the opportunity to comment to interested members of the public when the data is released by HCFA in December.

Sincerely yours,

Mark E. Cross
Administrator

MEC/ljs

Moberly Regional Medical Center

Operated as a Community Service by the Adventist Health System

P.O. Box 3000
Moberly, Missouri 65270
(816) 263-8400

The mortality data provided by Health Care Financing Administration has been incorporated into the ongoing peer review programs of Moberly Regional Medical Center. The Quality Assurance and Utilization Review Committees have analyzed the statistics to find the appropriate use of the data.

Both committees expressed concern that the statistics in and of themselves do not provide a measure for quality of care. Comparisons of actual and predicted mortality rates only suggest that the hospital and its medical staff review an area to determine if a quality problem exists or if the patients treated by the hospital are simply unusually complex or have other characteristics not recognized by the HCFA model that would lead to an above or below average mortality rate. Quality of care is of the utmost concern at MRMC and the hospital welcomes useful tools to direct or focus its quality assurance review program.

Noll Memorial Hospital
Junction Highways 69, 136 & 13
Post Office Box 428
Bethany, Missouri 64424-0428
816-425-2211

MEDICARE PROVIDER
#26-0109B

October 30, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Greetings. As a result of a special telephone request we received our mortality report with approximately one week to complete the review. As a small provider with few deaths it was much easier than if we had been a larger facility. Our report appeared inaccurate for the following reasons:

1-42% of the mortality reported for our facility did not occur at our hospital. Of all mortality reported for our facility 29% occurred in a nursing home following discharge from the hospital; 8% occurred in tertiary facilities to which the patient had been transferred from our facility. 4% occurred in the home following hospital discharge.

2-The diagnostic category taking from the principle diagnosis for acute care is not necessarily the proper category for the death. An example is a patient admitted for principle diagnosis of dehydration due to metastatic cancer later died as a result of the terminal cancer. However, according to the mortality report his death was categorized under the metabolic and electrolyte disorder group instead of the cancer grouping.

I was unable to forward these comments any sooner due to the delay of the receipt of basic information. I hope these comments will be useful in review of the reliability and validity of these reports.

Sincerely,

Mark B. VanFleet
Administrator

mjw

CC: Gary Tolivar, MHA

Normandy Osteopathic Hospitals

7840 Natural Bridge
St. Louis, Missouri 63121
314-389-0015

530 Des Peres Road
St. Louis, Missouri 63131
314-821-5850

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sir:

In response to our facility's mortality statistics, the comments made shall be three-fold. Initially, errors have been identified and corrections made. Secondly, explanations will be presented which may help the public interpret the data by discussing the services provided by this hospital. Lastly, we will emphasize that the data are not a measure of our hospital's ability to provide quality care.

In reviewing HCFA's data, some errors were noted. Most discrepancies noted were the patient's date of death. HCFA identified these patients as having expired outside the hospital. Upon examination, it was found that these patients indeed expired in the hospital. The date corrections are as follows:

1. [redacted] admitted 12/21, expired 12/28/86
2. [redacted]: admitted 12/10, expired 12/29/86
3. [redacted]: admitted 8/4, expired 8/13/86
4. [redacted] admitted 6/1, expired 6/2/86
5. [redacted] admitted 12/1, expired 12/23. Patient was transferred to N.H. on 12/8 and remained there until 12/20. She became ill and was transferred to Bethesda Hospital on 12/20 and expired 12/23/86.
6. [redacted] HCFA lists patient's acute stay as 5/15-5/29 for acute right CVA. Patient was then transferred to rehabilitation on 5/29 and remained there until 6/5/86 when she was transferred home. Patient expired 6/12/86.
7. [redacted] Date of discharge/expiration listed as 3/28. Patient expired 3/27.

In compiling/verifying information to base our comments upon, the categories of cancer and cerebrovascular disease were emphasized. Our facility tends to serve a high percentage of chronically/terminally ill patients. Many of these patients were

very close to death. Of those that were discharged and eventually expired at home, the grave prognosis was explained to the family. In this instance, the patients in the cancer category particularly had a higher than average risk of death.

Finally, data issued by HCFA should in no way be used to equate quality of care given by this institution. We will continue to give, as we always have, the highest standards of care possible.

Sincerely,

Warren A. Brucker
Executive Vice President and
Chief Executive Officer

WAB/psu

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	18	9	22	5
CE -- Cerebrovascular Accidents	21	3	21	3
GC -- Gastrointestinal Catastrophes				
GI -- Gastrointestinal Disease				
GU -- Urologic Disease				
GY -- Gynecologic Disease				
HL -- Low Risk Heart Disease				
HM -- Severe Chronic Heart Disease				
HS -- Severe Acute Heart Disease				
ME -- Metabolic/Electrolyte Disturbances				
OP -- Orthopedic Disorders				
PN -- Pulmonary Disease				
RN -- Renal Disease				
SE -- Sepsis				
TR -- Severe Trauma				
OP -- Ophthalmalogic Disease				
UN -- Other Diagnoses				
Total -- All Categories				

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

oak hill hospital

34th & Indiana • Joplin, MO 64804 • 417-623-4640

October 27, 1987

Dr. Roper
Healthcare Financing Administration
P. O. Box 26684
Baltimore, MD. 21207

Dear Dr. Roper:

The staff of Oak Hill Hospital have reviewed the 1986 Mortality Data for Medicare patients that your agency plans to publish in December 1987. After thorough review we wish to make the following comments. At first glance it would appear that the hospital exceeds the predicted mortality rates for "all causes" by six-tenths of a percent. However, in analyzing the sixteen specific diagnostic categories the hospitals mortality rates all fell within the predicted ranges. The specific diagnostic categories represented 70% of the hospital admissions for the 1986 calendar year. Assuming that the predicted rates for the sixteen categories is correct and the predicted rates for the "all causes" is correct, the hospital would have predicted rates for the "un" category of 10% to a negative (13%). The actual mortality rates for the hospital fell within the 1st. or 2nd. Quartile for nine(9) of the sixteen(16) categories. In other words the "all causes maximum" cases is thirty-three(33) cases less than the maximum number of allowable specific cases.

Based on the predicted mortality rates for the specific diagnostic categories it would appear that Oak hill Hospital's actual mortality rates fall below the median point of predicted rates. Our only conclusion is that the predicted rates for the "all causes" category is incorrect.

In addition to the inaccuracies of the predicted rates it appears relevant that 18% of the patients expired within twenty-four(24) hours and 25% expired within forty-eight(48) hours of admission. Also, the average age of both males and females exceeded the average life expectancy by three(3) years. In fact one patient expired from sepsis at the age of 101.

Oak Hill Hospital is an equal opportunity/affirmative action employer providing services on a nondiscriminatory basis

oak hill hospital

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Please find enclosed the statistical analysis used in preparing the comments on mortality data.

Myself and the staff at Oak Hill Hospital appreciate the opportunity to correct the mortality data prior to it's release in December.

Sincerely,

Keith Adams

Keith Adams
Administrator
Oak Hill Hospital
Provider # 26-0137

cc:Gary Tolivar
Missouri Hospital Association

Oak Hill Hospital is an equal opportunity/affirmative action employer providing services on a nondiscriminatory basis

ANALYSIS OF 1986 HCFA MORTALITY DATA - OAK HILL HOSPITAL - PROVIDER NO. 26-0137

	ACTUAL MORTALITY RATES			PREDICTED MORTALITY RATES				QUARTIL
	TOTAL			MINIMUM		MAXIMUM		
CAUSE	CASES	%	DEATHS	%	CASES	%	CASES	
CA	32	40.6%	13	13%	4	45%	14	4
CE	24	45.8%	11	14%	3	49%	12	4
EY	4	0.0%	0	0%	0	100%	4	1
GC	20	20.0%	4	3%	1	36%	7	3
GI	74	4.1%	3	1%	1	13%	10	1
GU	62	4.8%	3	1%	1	16%	10	2
GY	5	0.0%	0	0%	0	100%	5	1
HL	93	3.2%	3	1%	1	11%	10	1
HM	36	25.0%	9	10%	4	38%	14	3
HS	25	48.0%	12	23%	6	60%	15	3
ME	19	26.3%	5	4%	1	41%	8	2
OP	61	3.3%	2	0%	0	12%	7	2
PN	98	23.5%	23	12%	12	29%	28	3
RN	4	25.0%	1	2%	0	76%	3	2
SE	2	50.0%	1	3%	0	92%	2	3
TR	28	17.9%	5	2%	1	27%	8	2
SUB-TOTAL	587	16.2%	95	6%	33	27%	157	
OTHER	260	11.2%	29	10%	26	-13%	-33	
ALL CAUSES	847	14.6%	124	7%	59	14%	124	

park lane medical center

Family Centered Care

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D.C. 20201

Dear Dr. Roper:

This is in response to the HCFA Mortality Data accumulated for Park Lane Medical Center. A review of the data furnished for our review noted the following:

A) [redacted], Diagnostic Category PN reflects an admission date of December 5, 1985. This particular case appears to be in contradiction to the formal methodology used to accumulate the data.

B) While mortality rates in each of the diagnostic categories were within the predicted range, we did note that the actual population of many of the categories was extremely low, jeopardizing the statistical validity of the data.

It would appear that the publication of mortality data should have as a base, figures which represent statistically valid information. I would make this suggestion for all future endeavors of the Health Care Financing Administration.

Sincerely,

Derell Taloney, President
Chief Executive Officer

DT:hac

HCFA/EXEC.SEC.
1987 OCT 29 AM 10: 29

An Osteopathic Institution
5151 Raytown Road, Kansas City, Missouri 64133
Telephone (816) 358-8000

MO 95

MEMBER
Missouri Hospital Association
J.C.A.H. Approved

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LOUIS G. SCHILLY
Administrator
Tele: (314) 547-2536

Department of Health & Human Services
P.O. Box 26684
Baltimore, Maryland 21207

To: William L. Roper, M.D.

From: Louis G. Schilly, Administrator

Re: HCFA Hospital Mortality Information

Dear Dr. Roper:

Thank you for the opportunity to respond to HCFA's newest mortality document which you plan to publish in December.

Perry County Memorial Hospital is a licensed 87-bed acute care facility located in southeast Missouri. Our service area covers a population of approximately 17,000, of which 17% are elderly including over 400 extended care beds. Seventy percent of our inpatient admissions are Medicare patients. We offer inpatient intensive care, medical, surgical and obstetrical services. In addition to traditional outpatient services we have home health.

In reviewing this information we have compiled several comments we wish to share with the public.

1. In eleven of the fourteen diagnostic categories we fall in the lower one-third of the predicted mortality ranges.

2. In two other catagories, namely severe heart disease and gastrointestinal disease we fall in the lower two-thirds of the range.

3. Only in one category did we fair poorly, namely renal disease. Our mortality rate of 100% is not statistically significant considering your projected mortality is

PERRY COUNTY
MEMORIAL HOSPITAL
North West Street
Perryville, Missouri 63775-1398
(314) 547-2536

"An Equal Opportunity Employer"
"Services are provided on a non-discriminatory basis."

5-94%, and especially considering these were chronically ill patients with other problems including end stage renal problems. In fact both patients had DNR (do not resuscitate) orders precluding heroic measures.

One case, [redacted] had been admitted with bronchopneumonia, congestive heart failure, and renal failure one month prior to death. She was recuperating in our swing-bed program until two days prior to death. Her creatinine was 3.1 mg % on admission and 2.2 mg % six days prior to death. During this time urine output was good. Her cause of death was a result of her many chronic problems and was inevitable.

The other case was [redacted], with uncontrolled diabetes who had been admitted one month previously in congestive heart failure with creatinine of 1.4. On his last admission while he was in renal failure, his cardiac enzymes were also elevated, probably due to associated myocardial infarction, another inevitable death.

In summary, Perry County Memorial Hospital has enviable mortality statistics, especially considering Medicare's discriminating reimbursement policies which pay us over 25% less than other hospitals for what turns out to be superior care.

HSQ

pershing memorial hospital
130 EAST LOCKLING
— BROOKFIELD, MISSOURI 64628 — TELEPHONE 816 - 258 - 2222

DON SIPES
Administrator

October 6, 1987

Department of Health and Human Services
Health Care Financing Administration
Washington D. C. 20201
Attention: Mortality Report and Review Section
R.E.:
(Pershing Memorial Hospital Provider Number: 260079)
Mortality Data Release

Dear Sirs:

In reviewing the mortality data sent to us prior to public release, we have noted an error in the date of death on patient [redacted] The actual date of death was 11/16/86 instead of 11/30/86 as reported.

I would like to make one additional comment. I was pleased to see the advisory in the body of your letter which stated that you do not recommend the use of this data by itself to make judgements about quality of care in an individual hospital or to make comparisons among hospitals. I would hope that anyone accessing this information would understand the complexities involved in trying to compare individual responses to treatment, even when data is considered in the aggregate. There can be much margin for variation in mortality rates among hospitals where the quality of care is very good.

Thank you for the opportunity to register these comments prior to the release of our data.

Sincerely,

Don Sipes
Administrator

DS/tg

1987 OCT 14 PM 3:24
HCFA/EXEC.SEC.

PHELPS COUNTY
REGIONAL
MEDICAL CENTER

BOARD OF TRUSTEES
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ADMINISTRATOR
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October 21, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Doctor Roper:

Thank you for the opportunity to comment on the planned mortality data release. To the point, Phelps County Regional Medical Center (PCRMC), believes that this information, released without strong disclaimers, will at best be misleading to the general public, and at worst, be damaging and harmful to the very people it is supposed to help.

Indeed, in your letter of September 21, 1987, you stated, "we cannot and do not recommend the use of the information by itself to make judgements about the quality of care in an individual hospital or to make comparisons amoung hospitals". PCRMC agrees with this statement. We also recognize the lack of "other information" for the consumer to utilize in making a judgement. Thus, these statistics will be misleading, because if the data is released judgements will be made.

A case in point is the PCRMC data on Urologic Disease. Our mortality rate of 7% is well within the expected range of 2% to 16%. However, our rate may be significantly greater than those for the small hospitals that surround us. This is because we have a full time urologist on our staff, while the other hospitals do not. Therefore they send us their difficult urological cases and predictably will have a lower mortality rate. The consumer may see this mortality data and go to the hospital that is less experienced, and less able to provide quality care, because that hospital has lower mortality statistics. Indeed this scenario is especially true for the technologically dependent categories such as renal disease and severe chronic heart disease. It is our opinion, that the exact opposite affect as intended by you will take place! Thus our statement that the mortality data may be damaging and harmful to the very people it is suppose to help.

1000 WEST TENTH STREET • ROLLA, MISSOURI 65401 • 314-364-3100

AN EQUAL OPPORTUNITY EMPLOYER

Quality of care is of the utmost concern to our hospital's governing board, management, and medical staff. And we are please to know that per your statisticians, no major problems exist at PCRMC.

Nonetheless, we would ask that you not publicly disclose hospital specific data. But that if such data is disclosed, that there be strong disclaimers made in bold lettering regarding the use (misuse?) of this information.

Sincerely,

Richard Breeden, M.D.
Utilization Review Committee Chairman

Larry L. Dupper
Assistant Administrator/Finance

Research Medical Center

2316 East Meyer Boulevard
Kansas City, Missouri 64132

816/276-4000

October 26, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26676
Baltimore, MD 21201

Attention: Medicare Mortality Statistics

RE: **HOSPITAL ID #260027 - RESEARCH MEDICAL CENTER**

Dear Dr. Roper,

Research Medical Center is proud of the quality of care that is provided to all of its patients. While Research Medical Center compares favorably to the predicted ranges, we are compelled to comment on the program as an ongoing mechanism to measure quality of care. We recognize the need to continually monitor the quality of patient care and have several mechanisms in place to perform this function. These include (but are not limited to) our utilization review function and our quality assurance program.

In order to meet the needs of the population we serve, our 611 bed tertiary referral center continually reaffirms its commitment to the outlying rural community. Internally we have concentrated our programs into four centers of excellence. These centers, The Center for Neoplastic Diseases, The Center of Cardiovascular and Pulmonary Diseases, The Center for Renal Diseases and The Center for Neurological, Orthopedic and Rheumatoid Diseases, serve a large volume of severely ill patients and subsequently these patients have a higher than average morbidity and mortality rate.

The mortality report published by HCFA is just one indicator of the type of patient served. It does not give adequate information (nor should it be used) to make quality judgements about any institution. While the data attempt to make adjustments in the predicted mortality rates (for age, sex, and incidence of complicating conditions), there are several variants not included in this analysis. The most important of these is severity of illness. There are no adjustments due to patient status upon admission or discharge. Also excluded from the analysis, is the presence of multiple complicating conditions; , HCFA accounts for only one. 03

Although we have not been given the actual information used to calculate the predicted mortality rates, the information by category would lead us to believe that in some categories there was a small sample size or a sample with significant dispersion. This would yield a predicted mortality range with which there is a low confidence level.

When clarifying issues with the HCFA office (per Harvey Brook), it came to our attention that the published data are based on 1986 discharge date, not admission date as previously announced. Based on the definition set by HCFA in the Federal Register, with the change previously mentioned, our internal data differ significantly from those of HCFA. This is most evident in the number of admissions. While we recognize that several patients may have had subsequent admissions to other hospitals, it does not appear likely that this, alone, explains the variance. Also included in the HCFA data, is the death of one patient who was not admitted to our institution. The detail of that death is attached. If our internal corrections were made to the actual death rate and the number of cases columns of our data, the difference would be as follows:

TABLE 1

	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATE
All Causes	4,691	9%	
HCFA	4,031	9%	9-15%
CA - Cancer	450	17%	
HCFA	372	19%	20-35%
CE - Cerebrovascular Accidents	144	21%	
HCFA	119	22%	20-37%
EY - Ophthalmological Disease	26	0%	
HCFA	23	0%	0-73%
GC - Gastrointestinal Catastrophes	99	19%	
HCFA	89	19%	10-29%
GI - Gastrointestinal Disease	380	4%	
HCFA	328	4%	3-10%
GU - Urological Disease	197	1%	
HCFA	181	1%	1-10%

Research Medical Center

2316 East Meyer Boulevard
Kansas City, Missouri 64132

816/276-4000

October 26, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26676
Baltimore, MD 21201

Attention: Medicare Mortality Statistics

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HCFA	328	4%	3-10%
GU - Urological Disease	197	1%	
HCFA	181	1%	1-10%

GY - Gynecologic Disease	52	0%	
HCFA	47	0%	0-30%
HL - Low Risk Heart Disease	373	4%	
HCFA	316	5%	3-8%
HM - Severe Chronic Heart Disease	184	21%	
HCFA	155	22%	17-31%
HS - Severe Acute Heart Disease	125	37%	
HCFA	104	38%	28-49%
ME - Metobolic/Electrolyte Disturbances	66	9%	
HCFA	61	10%	7-30%
OP - Orthopedic Disorders	424	1%	
HCFA	379	1%	1-4%
PN - Pulmonary Disease	346	18%	
HCFA	301	18%	14-26%
RN - Renal Disease	73	14%	
HCFA	59	14%	11-42%
SE - Sepsis	33	24%	
HCFA	33	24%	24-59%
TR - Severe Trauma	101	4%	
HCFA	78	5%	3-18%

We support efforts to measure quality of care. We also recognize that HCFA is attempting to work toward that goal for the Medicare population. We strongly encourage that future publications of data, however, be presented in a format that recognizes quality indicators as opposed to statistical indicators of a group of patients.

Sincerely,

Richard W. Brown
President
Research Medical Center

RWB/as

ATTACHMENT I

The following patient does not appear in the Research Medical Center Admission files:

PATIENT ID NUMBER	SURNAME	DIAGNOSTIC CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH
[redacted]		SE	082	F	8/7/87	8/18/86	8/31/86

Spelman
Memorial
Hospital

A friend to care

October 23, 1987

William L. Roper, M.D., Administrator
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

I am writing in response to Health Care Financing Administration's release of selected Medicare Mortality data specific to Spelman Memorial Hospital.

Spelman Memorial Hospital is a 128-bed acute care hospital located in Smithville, Missouri. We have served the citizens of Clay, Platte and southern Clinton counties for nearly 50 years. Spelman is a not-for-profit, community hospital which is governed by an all-volunteer Board of Directors. As a primary care hospital we provide a broad range of medical services to meet the great variety of needs of our communities. Extending beyond the traditional acute care services, Spelman provides a number of special services which serve the more specialized needs of the area. An example of our specialized services is the Spelman Rehabilitation Center. This facility provides acute, intensive in-patient rehabilitation services to meet a vital need among our population.

Throughout the nearly 50 years of service we have established a reputation for providing quality of care. We have voluntarily, for the past 32 years, requested a total review of our hospital procedures by the Joint Commission Accreditation for Health Care Organizations. This type of review is the most comprehensive available to hospitals. Joint Commission specifically investigates quality of care, issues and policies. Spelman Memorial Hospital has been continuously accredited by the Joint Commission for Health Care Organizations since 1956.

Our decision to ask for review by Joint Commission is based on our philosophy that appropriate assessment of our performance is dependent upon many different variables. We believe that one must look at many different indicators of quality of which the Medicare Mortality statistics are but one.

601 South 169 Highway
Smithville, Missouri 64089
816 532-3700

VHA
Affiliate of the Voluntary Hospitals of America System.

It is not our intent to dispute or to re-state the mortality statistics as stated by Health Care Financial Administration. However, in our review of the cases we found that of the 72 total patients reported to have expired, 15 of those cases, or 21%, expired outside the hospital after their dismissal. The overall mortality rate for 1986 Medicare cases who expired while hospitalized is 9.4%. None of the 15 cases were identified as having any quality of care problems during PRO review, nor was there found to be any premature discharges.

We respectfully submit this information for our public's review.

Sincerely,

GENE MEYER, CEO
Spelman Memorial Hospital

GM/sga

AMI Springfield Community Hospital

October 24, 1987

William R. Roper, M.D.
Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

RE: Mortality Data-Medicare Patient-1986
Medicare Provider Number 260197

Dear Dr. Roper:

Thank you for the opportunity to respond to the release of data on hospital mortality rates for medicare patients treated at Springfield Community Hospital in 1986. While mortality rates, by themselves, do not measure quality, we use them to guide or focus the peer review of physicians and hospital staff members at our hospital.

Springfield Community Hospital is a 200-bed hospital providing family-centered care to patients of all ages and conditions. We must note that the data released on medicare patient deaths occurring at Springfield Community Hospital in 1986 places our hospital in a favorable light. According to the data, Springfield Community Hospital never exceeds the range of predicted mortality rates for any diagnostic category provided and, in all categories, the mortality rate is in the lower ranges.

All data contained in the HCFA Report has been validated by the Director of Medical Records and reviewed by the staff of Springfield Community Hospital as well as the Board of Directors. This exemplifies the commitment of the medical staff and Board of Directors to insure that the highest quality of care is provided to the patients of Springfield Community Hospital.

The quality of care provided at Springfield Community Hospital is enhanced through provision of state-of-the-art diagnostic and therapeutic modalities and the effectiveness of our quality assurance program. The Patient Care Accountability Program which monitors quality of care also supports patient safety, provides for review of utilization of resources, and importantly, reduces the probability of preventable adverse outcomes to the individual patient.

This internal quality assurance program provides for review of all deaths to distinguish those that were anticipated from those that were unexpected. Quality of care is reviewed in all situations even when the patient's death was an expected outcome of the advanced state of the patient's disease.

The medical staff of Springfield Community Hospital will continue to monitor the quality and appropriateness of care delivered in our facility. As part of this review, all patient deaths will continue to be examined for the quality of care rendered to that individual patient. This monitoring and review is just one of our endeavors to identify opportunities to improve patient care.

Again, thank you for this opportunity to present this response. If you or anyone receiving this information has additional questions, please do not hesitate to contact me.

Sincerely,

Lynda Donegan
President/Chief Executive Officer

cc: Neal Ethridge

/mn

ST. FRANCIS HOSPITAL
P. O. Box 82
Mountain View, Missouri 65548

October 26, 1987

William L. Roper, M.D.
Administrator
Dept. of Health & Human Services
Washington, D.C. 20201

Re: Medicare Provider No. 26-0018; Comments on HCFA Mortality Data

St. Francis Hospital is a short-term acute care hospital located in a very rural community. We provide acute care as well as swing-bed care and home care. We serve a wide variety of patients ranging from minor illnesses to terminal care. This community is composed of many elderly people who have lived their entire life in this area being surrounded by many friends and family. If a member of the community is afflicted with a terminal illness, they are generally brought to our hospital or are referred to a larger facility for specialized treatment. In the final stages of the illness, they often wish to return "home" to be near family and friends or are sent back to the community hospital when nothing more can be done.

Our hospital is continually striving to improve services. Our emergency room is equipped to handle a variety of emergencies to treat and stabilize patients. We have paramedics and specially trained nurses on duty to handle such emergencies. The availability of helicopter service to our facility makes it possible to transfer patients to Terciary-Specialty Centers. We are very mindful of training and providing quality services and we strive to continually improve patient care. Our staff is constantly reviewing care provided including review of death cases.

There are some particular areas of concern to our facility which appear in the HCFA Mortality Data. The data indicates that a total of 226 Medicare patients were admitted to St. Francis Hospital, while our own records indicate that 382 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. Our own records also indicate that of the 40 Medicare patients who died within 30 days of admission while still an inpatient, 6 were still alive at the time of discharge. It is impossible to determine the percentage of the 6 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record. However, it is important to note that, even using HCFA's statistics, 75% of the 40 deaths were 75 years old or older. 36 of the 40 deaths were 65 years old or older.

The two categories of concern to us, and which may be disputed by us, according to the HCFA data, are Cancer and Severe Acute Heart Disease. Patients with chronic, terminal illnesses are often cared for at home, and only admitted to the hospital when close to death or are admitted to the hospital to die or with a significant possibility of death. Patients are often sent from VA Hospitals or other Terciary/Specialty Hospitals to our community hospital when "nothing further can be done" or when the patient is "inoperable" or are recommended for only "supportive care".

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in their analysis.

In the category of HS (Severe Acute Heart Disease) of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. After correcting the errors in the recording of deaths, the number of categories in which the actual mortality rate is outside the range of the predicted mortality rate falls to within the range predicted. Several factors may account for this difference. For example, two patients whom we feel were included in the HCFA data as deaths attributable to our facility, were transferred from our facility to receive more specialized care and were stabilized and alive when they left our facility. When dealing with small numbers of deaths anyway, the deletion of these two patients from the statistics would make a significant difference in the percentage for that category and would put the percentage within the range of the predicted mortality rate.

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	8		8	
CE -- Cerebrovascular Accidents	1		1	
GC -- Gastrointestinal Catastrophes	0		0	
GI -- Gastrointestinal Disease	1		1	
GU -- Urologic Disease	0		0	
GY -- Gynecologic Disease	0		0	
HL -- Low Risk Heart Disease	0		0	
HM -- Severe Chronic Heart Disease	5		5	
HS -- Severe Acute Heart Disease	9		7	
ME -- Metabolic/Electrolyte Disturbances	1		1	
OP -- Orthopedic Disorders	0		0	
PN -- Pulmonary Disease	5		4	
RN -- Renal Disease	4		4	
SE -- Sepsis	1		0	
TR -- Severe Trauma	0		0	
OP -- Ophthalmalogic Disease	0		0	
UN -- Other Diagnoses	4		3	
Total -- All Categories	40		34	

MO 122.2

ST. FRANCIS HOSPITAL
P. O. Box 82
Mountain View, Missouri 65548

October 16,1987

William L. Roper, M.D.
Administrator
Dept. of Health & Human Services
Washington, D.C. 20201

Dear Dr. Roper,

As chief of staff of St. Francis Hospital I reviewed the HCFA mortality data for our hospital for the year 1986. On review I did find several discrepancies in the data. One was two cases that had been transferred from our hospital to a larger hospital for treatment of a myocardial infarction and died at the larger institution and yet we did get credit for those deaths too. Although, on the other hand we had another patient who had been hospitalized in the VA hospital that was admitted to our hospital for terminal care and died at our institution and although he had been treated in a VA hospital previously we were credited for that death.

We are very pleased with our small community hospital and the standing that it has earned in the community and we are quite concerned that statistical data which is misrepresented could effect our hospital in the community.

Please let me know if I may be of any further assistance in regards to this data.

Kindest regards,

J.W. Roberts, D.O.

JWR/ss.

225 West Hayden
Marceline, Mo. 64658
816 376 3521

St. Francis Hospital
and Nursing Facility

October 8, 1987

William L. Roper, M.D., Administrator
Department Of Health & Human Services
6325 Security Blvd.
Baltimore, Maryland 21207

Dear Dr. Roper:

I have reviewed the mortality data as submitted by your office for St. Francis Hospital, Marceline, Missouri and would like to make the following comments:

1. The errors found in the data submitted were:

   a. [redacted] This patient was never admitted to St. Francis Hospital. All identifiers for this patient appear to be a repeat of another patient admitted to St. Francis.

   b. [redacted] The Date of Death is listed as 11/30/86. Our records indicate that the Date of Death was 11/12/86, the same as the Date of Discharge.

   c. [redacted] The Date of Death is listed as 12/31/86. Our records indicate that the Date of Death was 11/22/86, the same as the Date of Discharge.

2. The Date Of Discharge can be a misleading indicator. It gives the impression that the patient was discharged from the hospital with not follow up care and the patient died a short time later. This category should be explained.

   a. [redacted] Date of Discharge was 02/27/86 and Date of Death was 03/01/86. Patient was transferred back to Extended Care when there was

225 West Hayden
Marceline, Mo. 64658
816 376 3521

St. Francis Hospital
and Nursing Facility

nothing further that could be done for the patient at the acute level. They expired while a resident in a Long Term Care Facility.

b. [redacted] Date of Discharge was 12/12/86 and Date of Death was 12/31/86. Patient was transferred back to The Veterans Hospital when there was nothing further that could be done for the patient at the acute level. They expired while a patient there

c [redacted]ate of Discharge was 12/09/86 and Date of Death was 12/25/86. Patient was transferred back to Extended Care when there was nothing further that could be done for the patient at the acute level. They expired while a resident in a Long Term Care Facility.

d. [redacted] Date of Discharge was 02/13/86 and Date of Death was 02/14/86. Patient was transferred back to Extended Care when there was nothing further that could be done for the patient at the acute level. They expired while a resident in a Long Term Care Facility.

e. [redacted] Date of Discharge was 06/14/86 and Date of Death was 06/25/86. Patient was transferred back to Extended Care when there was nothing further that could be done for the patient at the acute level. They expired while a resident in a Long Term Care Facility.

It should also be noted that of the patients listed above three never left St. Francis but were transferred to the Extended Care wing of the Hospital. They were:

[redacted]

225 West Hayden
Marceline, Mo. 64658
816 376 3521

St. Francis Hospital
and Nursing Facility

3. The average age of the patients listed should be noted as being 85 with the youngest at 62. Of the 36 correctly listed patients they break down as follows: 60-69 years old----6%
70-79 years old---31%
80-89 years old---39%
90 years & UP-----25%

Although the Department Of Health And Human Services is of the opinion that the release of this mortality data is going to assist consumers in making more rational judgements about the quality of care delivered at various institutions I do not agree. Instead of answering questions or making decisions easier I see this data as raising unwarranted fears and concerns because they are not able to interpret what the data actually means or it will be wrongfully interpreted. HCFA has even acknowledged, "that the information in its own is not a complete measure of the quality of care at an individual hospital." Until the other measures have been developed I feel the public would be better served not receiving any data. Again HCFA states, "we do not recommend the use of the information by itself to make judgements about the quality of care in an individual hospital or to make comparisons among hospitals." If this is there opinion then why release the information at all. There is no additional information available to use in conjunction with the mortality data and if there were it would not be readily available to or easily interpreted by the general public. Exactly what they recommend the public not do is exactly what they will do with this data, and that is use it to draw conclusions about the quality of care at different facilities and to base their choice of hospital on the data.

Thank you for allowing me to comment on the release of this data.

Yours truly,

Terry L. Watson

Terry L. Watson
Executive Director

Saint
Francis
Medical
Center

JOHN J. KEUSENKOTHEN
PRESIDENT

William L. Roper, M.D., Administrator
Health Care Financing Administration (HCFA)
Department of Health and Human Services
Washington D.C. 20201

re: 26-0183

Dear Dr. Roper,

Saint Francis Medical Center is most appreciative of the opportunity to provide written comments to HCFA in response to the published 1986 selected Medicare mortality rates.

The data submitted by HCFA with respect to the patients' date of admission, date of discharge, date of death, principal diagnosis and principal procedure, have been reviewed by the organization's Medical Records and Quality Assurance Departments personnel. Based on our review, the HCFA data appearing in the report have been determined to be accurate.

At Saint Francis Medical Center we believe the appropriate assessment of a hospital's performance is dependent upon numerous variables, and requires a look at many quality indicators of which mortality is but one. While we were pleased that our quality of care as measured by HCFA's mortality data met HCFA's standards in all cases, we continue to believe that our assessment of the delivery of quality care at Saint Francis must be measured in terms of our ability to achieve the highest possible level of patient satisfaction through a holistic approach of caring for the ill. Sound medical staff credentialing and reappointment processes, state-of-the-art technology, highly skilled and trained professional personnel, and an organization's caring attitude regarding the ethical, moral and religious rights of an individual are but a few of the additional indications which we feel must comprise any definition of quality care.

Saint Francis Medical Center is a 110 year-old, not-for-profit health care facility which is governed by a voluntary Board of Directors comprised of predominantly local community leaders. The 264 acute-care bed Medical Center is fully accredited by the national hospital accrediting agency, the Joint Commission on Accreditation of Hospitals (JCAH). Throughout its history of

being surveyed by the JCAH, the Medical Center has always achieved the highest accreditation status possible. As a fully accredited institution, Saint Francis maintains an active, internal quality review program consistent with acceptable national standards of care.

In 1985, HCFA designated Saint Francis as a Regional Referral Center. Through this special designation, Saint Francis has demonstrated that in meeting the medical needs of the region the Medical Center attracts those patients who require a greater intensity of care, and who often maintain a higher risk of mortality and morbidity. For this reason, it is not unlikely that future HCFA surveys may reflect disproportionately higher than average mortality rates for this facility.

We again appreciate the opportunity to comment on this matter. Hopefully, in future surveys, additional meaningful quality of care factors, such as those listed above, can be incorporated into the data which HCFA releases to the public.

Sincerely,

John J. Keusenkothen
President

/cf

cc: Mr. Charles Bowman, President
Missouri Hospital Association

St. John's Mercy Medical Center
615 South New Ballas Road, St. Louis, Missouri 63141-8221 • (314) 569-6000

October 28, 1987

Health Care Financing Administration
Department of Health and Human Services
HSQ-148-GNC
P.O. Box 26676
Baltimore, Maryland 21201

Dear Sirs:

Following are our comments on the post-admission mortality rates and specific mortality rates for certain medical conditions which we received from your office.

We have reviewed your data which were, and, with a few exceptions, we find that your report is an accurate depiction of our experience at St. John's. Attached for your use is our analysis of the discrepancies in your data.

To date, we have done no more than validate your data. We regard your analysis as a gross indicator of our performance. We will use your report to bring further focus to our ongoing quality assurance program.

It is important to bear in mind that St. John's Medical Center is a teaching hospital affiliated with three medical schools. We provide a comprehensive range of tertiary care services to a population of patients which may be somewhat older and sicker than one would find in most community teaching hospitals.

More specifically, we sponsor a well-established Burn Center, a comprehensive Rehabilitation Center, a hospice program and a geriatric services program, a component of which is a skilled nursing facility. In addition, St. John's Mercy Medical Center is one of three Level I Trauma Services in the St. Louis metropolitan area. We sponsor a major cancer diagnosis and treatment program which is part of the federally funded Comprehensive Community Oncology Program network. Finally, the St. John's perinatal service is one of the largest in the country; the high-risk maternal and infant

components of this service are equally large and active. These and other programs contribute to the Medical Center's casemix and severity of illness characteristics which may, as noted above, differ from most community teaching hospitals.

Please feel free to contact Terri Hartwell, our Director of Health Information Services, should you have any questions about our analysis of your data.

Sincerely,

John T. Farrell

John T. Farrell
President

attachments

cc: Richard I.C. Muckerman, M.D.
Terri Hartwell

ATTACHMENT

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer (includes one pt. listed twice)	81	20	82	18 (includes one unabl to be verified)
CE -- Cerebrovascular Accidents	30	4	30	4
GC -- Gastrointestinal Catastrophes	10	0	10	0
GI -- Gastrointestinal Disease	19	3	19	3
GU -- Urologic Disease	9	1	9	1
GY -- Gynecologic Disease	0	1	0	1
HL -- Low Risk Heart Disease	15	5	15	4 **
HM -- Severe Chronic Heart Disease	31	6	31	6
HS -- Severe Acute Heart Disease	48	1	48	1
ME -- Metabolic/Electrolyte Disturbances	0	2	0	2
OP -- Orthopedic Disorders	4	1	5	0
PN -- Pulmonary Disease	34	5	35	4
RN -- Renal Disease	0	1	1	1
SE -- Sepsis	7	0	7	0
TR -- Severe Trauma	8	2	9	1
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	61	19	62	18
Total -- All Categories	357	71	363	64
	428		427	

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

** One patient listed on HCFA's list expired in ER at St. Mary's

MO 126.2

HCFA Mortality Rates - Discrepancies

Patient ID #	Name	Category	Age	Sex	Adm. Date	Dis. Date	Date of Death	Change
[redacted]		CA	067	F	08/07/86	08/17/86	08/31/86	Expired at SJMMC on 08/17/86
[redacted]		CA	085	F	06/27/86	07/07/86	07/07/86	Patient listed twice on HCFAs list
[redacted]		CA	064	M	12/20/86	12/22/86	12/24/86	Patient expired in SJMMC's SNF on 12/24/86 (not outside as reported by HCFA)
[redacted]		CA	057	F	07/08/86	07/17/86	07/31/86	Unable to verify from any source
[redacted]		CA	073	F	11/01/86	11/19/86	11/26/86	Expired in SJMMCs SNF on 11/26/86 (not outside as reported by HCFA)
[redacted]		HL	078	M	03/30/86	04/03/86	04/24/86	Dis. alive from SJMMC on 4/24/86; expired in ER at St. Mary's

MO 126.3

[redacted]	OP	087	F	09/27/86	10/03/86	10/13/86	Expired in SJMMC's ER 10/13/86, not outside as reported by HCFA
[redacted]	PN	071	F	07/15/86	07/19/86	07/21/86	Expired at SJMMC on 07/19/86, not outside as reported by HCFA
[redacted]	TR	079	F	10/18/86	10/24/86	10/29/86	Expired in SJMMC's SNF 10/29/86, not outside as reported by HCFA
[redacted]	UN	071	M	09/25/86	10/15/86	10/21/86	Expired in SJMMC's SNF 10/21/86, not outside as reported by HCFA

MO 126.4

* The above was prepared prior to a discussion with Harvey Brook from HCFA on 10/13. Mr. Brook indicated that statistics were based only on short term facility information. Therefore, SNF items appear to be explainable variances.

St. John's Mercy Hospital

[illegible] 239-7711

October 27, 1987

TO: Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Marylnad 21207

FROM: St. John's Mercy Hospital
Provider #260052

We would like to make several comments regarding the recently published HCFA Mortality Data regarding St. John's Mercy Hospital in Washington, Missouri.

1. We feel it is valuable to note the average age of the patients who expired within the diagnostic categories. The average ages are as follows:

DIAGNOSTIC CATEGORY	AVERAGE AGE
Cancer (CA)	76
Cereberal Vascular Accidents (CE)	80
Ophthalmological Disease (EY)	No mortality
Gastrointestinal Catastrophes (GC)	84
Gastrointestinal Disease (GI)	84
Gynecological Disease (GY)	94
Low Risk Heart Disease (HL)	76
Severe Chronic Heart Disease (HM)	79
Severe Acute Heart Disease (HS)	78
Metabolic/Electrolyte Disturbances (ME)	80
Orthopedic Disorders (OP)	No mortality
Pulmonary Disease (PN)	81
Renal Disease (RN)	82
Sepsis (SE)	76
Severe Trauma (PR)	80
All Other Conditions (UN)	80

The average ages certainly indicate that a significant portion of the population in this service area is very elderly.

2. Under the diagnostic category of Cancer (CA), it should be noted that 17 of the 25 cases listed on the mortality report represent individuals known to be terminally ill at the time of their last admission. Their conditions were terminal and there were no additional types of treatment either at this hospital or tertiary referral centers which could change the progress of their cancer.

3. Under the diagnostic category of Sepsis (SE) only a total of nine (9) cases were identified as having been admitted to this hospital during 1986 and therefore does not constitute a statistically valid sample size.

Terry M Rose

Terry M. Rose
Administrator
St. John's Mercy Hospital
200 Madison Avenue
Washington, MO 63090

St. John's
Regional Medical Center

Robert J. Fanning
President

2727 McClelland Boulevard
Joplin, Missouri 64801
417-781-2727

October 27, 1987

William L. Roper, M.D.
Administrator,
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

St. John's Regional Medical Center is in receipt of the HCFA mortality information relative to our hospital and appreciate the opportunity to respond to the information. We have put together a team of hospital professionals which has analyzed and evaluated the validity of the data. We recognize there is some degree of error and/or discrepancy regarding those patients that died within thirty days of their last hospital admission at St. John's. However, we do not intend to dwell on the mathematical formulas that were utilized by HCFA in order to determine the mortality statitics at our hospital.

Description of the hospital and its service area.

St. John's Regional Medical Center in Joplin, Missouri is a 367 bed Sisters of Mercy medical complex. St. John's serves a nineteen (19) county area with a population of over 500,000 in the four state region of Arkansas, Kansas, Missouri and Oklahoma. With a medical staff of over 170 physicians and dentists and a staff of over 1300 skilled employees, St. John's is recognized as the Major Referral Center for Trauma, Oncology, Cardiology, Cardiovascular, Neurosurgery, Neurology, Rehabilitation and Psychiatry.

Unique Services Provided at St. John's.

As a Major Referral Center, especially in the areas of heart disease and cancer as well as those areas previously noted, St. John's attracts a high volume of severely ill patients from a large geographic area. St. John's is the only major referral center within the region offering these specialized programs for the very sick/acutely ill patients. Patients are referred to our hospital from physicians and hospitals in the four state region.

A Sisters of Mercy Institution Since 1896

Characterestics of Patients Utilizing our Hospital

As a result of reviewing the records of those patients that died within thirty days of their last admission to St. John's, it became apparent that those patients had a number of unique characteristics.

- 40% of the patients had been previously admitted to the hospital within twelve (12) months of their death.
- 30% of the patients died within 48 hours of being admitted to the hospital.

The conclusions drawn from these statistics is that patients under the various diagnostic categories, specifically those cancer, stroke accidents, low risk heart disease, severe chronic heart disease and severe acute heart disease were that:

- 53% of the patients were suffering from multiple (systems) illnesses/diseases at the time of their admission to the hospital.
- 75% of the patients suffering from strokes and heart disease who later died were admitted to the hospital by way of the emergency room.

Additional evaluation of the patient's medical records pointed to the fact that the majority of patients who died within the thirty day time period after admission to the hospital were of an advanced age. Quite frankly, it is expected that older patients having the characteristics previously discussed would have a higher liklehood of dying.

The Case Mix Index for St. John's, which is a measure of the acuity or sickness level of our patients, is 1.31, and is the highest in our regional service area. This is a direct result of the type of programs and services offered by St. John's and the patients that are admitted to our hospital. In addition to being a heart and cancer referral center we also have a Hospice program which is associated with care for the terminally ill patient.

Relationship between mortality and quality of care

As a result of our analysis of the patient's medical records, it was concluded that the mortality rates are directly related to the type of patients and the severity of their illnesses/diseases and not their treatment. Our medical specialists treat severely ill patients who are referred to St. John's from throughout the four state area. Approximately 18% of the patients we have been evaluating were transferred to St. John's from another hospital. It should also be noted that approximately 64% of the patients in the diagnostic categories of cancer, stroke, heart disease and life-threatening infections had "Do Not Resuscitate" orders on their charts because of the severity of their illness and their advanced age.

Conclusion

St. John's Regional Medical Center as a major referral center has developed an excellent regional reputation through the provision of high quality, responsive and compassionate care. The medical staff and hospital have quality assurance programs which review the care provided patients on an ongoing basis. The HCFA mortality data is only one indicator of the characteristics of patients treated at our hospital. St. John's is commited to serve and treat all patients referred from our service area especially those seriously ill patients which are referred to the hospital because of their need for our specialty services.

Respectfully submitted,

Robert J. Fanning
President

wm

ST. JOHN'S
In Touch...With Care

October 14, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE: St. John's Regional Health Center
Medicare Provider No. 260065

Dear Doctor Roper:

St. John's Regional Health Center appreciates the opportunity to comment on HCFA mortality data prior to the anticipated release in December, 1987.

The data provided by HCFA indicates a total of 7,982 Medicare admissions were included in the analysis of actual mortality rates. Of these 7,982 patients, 702 died within 30 days of their last admission of 1986. Five hundred and twenty-five (525) of the patients died in the Health Center; 177 of the 702 patients died after being discharged from the Health Center. Our records indicate that during the year covered by the HCFA report St. John's Regional Health Center admitted 12,370 Medicare patients. Our records further indicate that 625 of these patients died in the Health Center. Adding the 177 deaths within 30 days of their discharge from the Health Center, we have a total of 802 deaths or a mortality rate of 6.5 percent compared to the mortality rate reported by HCFA of 9 percent. This represents approximately a 40 percent lower mortality rate than reported by HCFA, but we recognize HCFA's data excludes multiple admissions to the Health Center of the same patients as well as patients that were transferred to and from other health care facilities. We do not have a mechanism to reconcile the total Medicare admissions reported by HCFA to the total admissions reported by the Health Center because the detail of the 7,982 HCFA admissions was not reported.

It is our understanding that the discharges by diagnostic category are reported by HCFA based on the principal diagnosis. The principal diagnosis is the diagnosis which after study represents the reason for the patient being admitted to the Health Center. A patient was admitted to the Health Center on 3-31-86 for cataract surgery under general anesthetic. The medical record shows the patient also had arteriosclerotic heart disease, diabetes and arthritis . After an uncomplicated hospital stay, the patient was discharged on 4-2-86. The patient died 4-27-86. It is highly unlikely that the cause of death is related to the principal diagnosis of cataract surgery. To include this death with the ophthalmologic mortality rate and to include this death with the Heart Center's mortality rate may be misleading. We do not feel this is an isolated example. The circumstances surrounding the 177 deaths after discharge are not available and they may or may not be related to the diagnostic category shown on the report making the mortality rate reported by diagnostic category questionable.

The other ophthalmologic death reported was a 72-year old male who was admitted for right eye infection. The patient's past medical history was significant for end-stage Parkinson's Disease, dementia, atherosclerotic coronary vascular disease and status post resection of the sigmoid colon for cancer. The patient also had bilateral lower lobe pneumonia and possible sepsis. The family and physician decided not to intubate the patient for respiratory failure and this patient expired on 9-30-86, the fourth day in the hospital. In this case, the ophthalmologic disease was not the cause of death so that the actual mortality rate reported for this diagnostic category (and perhaps for others) is misleading because the ophthalmologic diagnostic mortality rate would be overstated and other diagnostic category mortality rates would be understated. In addition, we do not feel it is appropriate to make any inference, much less conclusion, relative to the quality of care at St. John's based on this case and similar cases because the patient's condition was chronic upon admission and death was eminent.

In your letter to us dated September 21, 1987, you state, "We cannot and do not recommend the use of the information by itself to make judgments of the quality of care in an individual hospital or to make comparisons among hospitals." We feel it will be a natural tendency for the user of the data to make a judgment based on this data relative to the

quality of care in an individual hospital and to make comparisons among hospitals which it appears from our analysis and from your comments would be inappropriate and perhaps result in erroneous conclusions as to the quality of care.

It is impossible for the Health Center to verify the appropriateness of the range of predicted mortality rates presented in the HCFA report. It is apparent there is some controversy within the industry related to the methodology used to establish the range of predicted mortality rates. At this time, we are unable to comment specifically on the methodology used except to note that the American Hospital Association states (in a September, 1987 letter) that "at best, the model offers crude estimates of the expected risk of death."

Very truly yours,

Allen L. Shockley
Executive Vice President

ALS/bc



Comments on the HCFA Mortality Data

Provider #260085

Data Verification

The data used by HCFA indicates that a total of 261 Medicare patients admitted to Saint Joseph Health Center died within 30 days of admission. Of these, 205 died while still a patient of the hospital, while 56 died after discharge. It is impossible to determine the percentage of the 56 patients dying after discharge who were in fact alive, as information concerning death after discharge is not included in the patient's medical record. Our own records indicate that 3,612 Medicare admissions occurred in 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verifying whether HCFA's number of Medicare patients treated at Saint Joseph Health Center is correct.

Without detailed information concerning the billing data that was available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis.

Interpretive Remarks

In all of the diagnostic categories, the hospital's actual mortality rate falls within the range of the predicted mortality rate.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

St. Joseph Health Center

300 First Capitol Drive, St. Charles, Missouri 63301, (314) 947-5077

Executive Offices

October 15, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Dept. of Health & Human Services
200 Independence Avenue, SW
Washington, DC 20201

RE: Mortality Data
Hospital ID#260005

Dear Dr. Roper:

Although your data regarding mortality information about 1986 Medicare patients at St. Joseph Health Center distinctly displays that our actual mortality rates for 1986 Medicare patients are well within your identified "predicted ranges" in every diagnostic category, we still nonetheless oppose the release of this data to the media.

This data has absolutely no bearing on "quality" in and of itself. Without the considerable related data, you are not presenting an accurate picture to the community. For example, we, St. Joseph, are in a metropolitan county with absolutely no county government-supported health care services for the indigent--hospital or clinic services. Additionally, as the only hospital in the county that routinely admits patients regardless of their ability to pay, including indigent Medicare patients, we tend to receive sicker patients than our neighboring hospital, a for-profit hospital that will not accept them. However, your data does not reflect our care of indigent patients who are, as you are well aware, sicker than other patients.

Furthermore, we have the only hospice program in a three-county area for the terminally ill patient. Frequently, other hospitals refer their terminally ill patients to us. Thus, the patient's "last admission" is frequently St. Joseph; therefore, our data is unjustifiably skewed because we maintain such a program. It simultaneously makes the data of hospitals referring patients to us look better as a patient's "last admission" was not at their hospital.

In short, you are misleading the public with potentially skewed information.

Thank you for the opportunity to voice our concerns.

Sincerely,

Martin J. Strussion
Executive Director

MJS/bk

St. Joseph Hospital West

A Division of St. Joseph Health Center

100 Medical Plaza, Lake Saint Louis, Missouri 63367, (314) 625-5330

Executive Offices

October 15, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Dept. of Health & Human Services
200 Independence Avenue, SW
Washington, DC 20201

RE: Mortality Data
Hospital ID#260200

Dear Dr. Roper:

To propose to publish data such as this on St. Joseph Hospital West shows total irresponsibility on your behalf. If you had bothered to review this data, you would have noticed that St. Joseph Hospital West was opened for only two weeks in all of 1986. St. Joseph Hospital West is a brand new facility which opened the last two weeks of that year. As such, to in any way indicate that two weeks' worth of data is reflective of an entire year is not only irresponsible, it is totally and completely misleading to the public.

Your data indicates that in all of 1986, since you obviously discount the fact that we were only open two weeks, St. Joseph Hospital West had eight Medicare patients. Thus, for any measurement you wish to apply, there would be absolutely no statistical validity.

To show how erroneous your data is, your information displays that St. Joseph Hospital West had one Medicare admission in your diagnostic category labeled "Metabolic/Electrolyte Disturbances". It furthers indicates that this one singular Medicare patient in this diagnostic category died. Thus, giving St. Joseph a 100% mortality rate in this diagnostic category. This is utterly absurd.

What is even worse with your data is that with these "mortalities", you present absolutely no related data. For example, the singular patient mentioned previously in the "Metabolic/Electrolyte" diagnostic category was a terminal cancer patient who had been in and out of hospitals repeatedly the same year before St. Joseph Hospital West was even open. However, it appears that St. Joseph Hospital West had the "misfortune" of having admitted this patient for dehydration. His dehydration was treated for palliative purposes to make him more comfortable so that his eventual death due to cancer would be

as comfortable as possible. Thus, St. Joseph Hospital West became the last hospital of admission against which you are recording his mortality.

I thoroughly object to your releasing statistically inaccurate data to the public. However, should you choose to overlook the statistical invalidity of this data and publish it anyway, I specifically request that it be clear that this data is significantly skewed as it represents only a two-week time period and that the particular patient noted in the diagnostic category "Metabolic/ Electrolyte Disturbances" was a terminally ill cancer patient in his 70's who was admitted for dehydration and palliative treatment and that his admission at St. Joseph Hospital West had absolutely no bearing on his mortality from a previously diagnosed terminal illness.

Thank you for your attention in this matter.

Sincerely,

Martin J. Strussion
Executive Director

MJS/bk

cc: Senator John Danforth
Senator Christopher Bond
Representative Harold Volkmer

St. Joseph Hospital

525 Couch Avenue
Kirkwood, Missouri 63122
314 966-1601

Sister Catherine Durr, csj
President

October 23, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

St. Joseph Hospital appreciates the opportunity to review the Medicare mortality data in advance of publication by the Health Care Financing Administration (HCFA). St. Joseph Hospital is a general acute care facility licensed to operate 332 beds in the State of Missouri. The Hospital has active medical and surgical services providing care in the diagnosis and treatment of cancer, cardiovascular, cerebrovascular, and pulmonary disease which are predominant illnesses among the Medicare patients served by the Hospital.

Our records indicate that in 1986, 10,047 patients were admitted to the Hospital, 4,104 of these were Medicare beneficiaries. The data used by HCFA indicates that a total of 2,807 Medicare patients were treated at St. Joseph Hospital. The HCFA data is limited to the last admission of patients admitted to the Hospital more than once during the year, which accounts for the difference. The focus on the last admission mitigates the fact that the course of treatment during previous admissions may have demonstrated the inevitable progression of illness toward death which is a significant factor to consider in evaluating the quality of care provided.

The HCFA Mortality Data was reviewed by the Medical Staff Executive Committee and Quality Assurance Committee at St. Joseph Hospital. The actual Mortality Rate was noted to be well within the limits of the HCFA Range of Predicted Mortality Rates. The patient specific data was reviewed by the medical record professionals who confirmed the accuracy of that data with one exception. One patient listed in the HCFA data as a death post discharge expired while in the Hospital.

The data used by HCFA indicates that a total of 318 Medicare patients admitted to St. Joseph Hospital died within 30 days of admission. There were 267 patients identified as expiring while still a patient of the Hospital, while 51 died after discharge. Of the post discharge deaths, we were able to verify that 13 were in the cancer diagnostic category. St. Joseph Hospital provides a Hospice Program for the terminally ill which supports patients and families who have expressed a desire to die in the environment of their home. It would be expected that these patients, meeting admission criteria, would have died in the Hospital were we not able to support their wish to die at home. Of the remaining 38 post discharge deaths, 29 were discharged to extended care facilities and were expected to die because their prognosis was poor at the time of discharge. The 9 remaining patients were discharged to home but their prognosis would suggest eventual death.

To fulfill St. Joseph Hospital's commitment to ensure the provision of high quality patient care, a Quality Assurance Program is in place. This program identifies as its goal the implementation and maintenance of a unified, comprehensive program which monitors and evaluates the quality and appropriateness of the patient care provided. As a part of this program, all deaths occurring in the Hospital are reviewed by members of the Medical Staff in the peer review committee of the department in which the death occurred. The physician members of these committees perform the patient care evaluation function in each department on a case-by-case basis to ensure that the care provided meets acceptable department standards. Corrective actions are taken if a problem is identified. Mortality review and the resulting management of hospital death rate data is only one component of the comprehensive quality assurance program.

HCFA's use of Mortality Data as an indication of the quality of care provided is subject to potential problems. It is extremely important that the public understand the limitations of the data as a quality indicator. The lack of case severity adjustments in the raw data is the principle limitation. Patients in critical condition from accidents and patients who are terminally ill are included in the diagnostic category along with the patients requiring minimal intervention. While the HCFA data does consider the relationship between a limited number of variables, it does not consider such variables as the stage of the illness, concurrent interacting conditions, the patient's psychological state, extent of nonoperating room procedures, and rate of recovery to name a few. These and other unexplained variables may result from patient characteristics not measured in the HCFA model.

At best, the HCFA Mortality Data can be considered by all hospitals as an indicator of possible quality problems. As such, it can be used as an additional screening tool to identify areas or suggest areas for further review in the ongoing quality assurance activities of the hospital.

In conclusion, I would like to emphasize that it is erroneous to conclude that quality problems are probable based on the HCFA data alone. Furthermore, in no way can the data be used to confirm quality problems. Caution must be exercised to avoid concluding that the difference between any hospital's actual and expected mortality rates reflect especially high or low quality of care.

Sincerely,

Sister Catherine Durr

Sister Catherine Durr, csj
President

dc

St. Louis Regional Medical Center

5535 Delmar Boulevard
St. Louis, Missouri 63112
Telephone (314) 361-1212

Robert B. Johnson
Chief Executive Officer

October 26, 1987

William L. Roper, M. D.
Administrator
Health Care Financing Administration
Washington, D. C. 20201

RE: Medicare Provider No. 26-0008

Dear Doctor Roper:

We have received information regarding our Hospital's Medicare patient mortality data for 1986, and appreciate the opportunity to offer several comments.

The Saint Louis Regional Medical Center is a 300-bed acute care general hospital established in 1985. We provide hospital services for residents of Saint Louis City and County regardless of ability to pay. For this reason, we are the source of hospital care for a large proportion of medically indigent patients in Saint Louis.

The review of hospital deaths has always been a major part of our quality assurance program. We have found the detailed analysis of such cases useful in assuring ourselves that no opportunity to improve quality of our care has been overlooked.

Unfortunately, the statistical analysis of our Medicare patients' deaths which you have undertaken may be misleading when released to the public. Many persons in the community may mistakenly believe that your statistics are a measure of the quality of care we provide to Medicare patients. They will not realize that your published information fails to take into account the many complex factors contributing to the severity of a patient's illness, which is the major determinant of death.

We agree with your statement, "until we have developed additional statistical measures to deal with complex issues such as severity of illness, we can not and do not recommend the use of the information by itself to make judgments about the quality of care in an individual hospital or to make comparisons among hospitals."

Our hospital serves a population of patients similar to that of urban public hospitals around the United States. Our elderly and disabled Medicare patients experience the higher morbidity and mortality that has been repeatedly documented among the poor. A much more detailed and sophisticated analysis than yours would be necessary to measure the impact of our care on the survival of our Medicare patients.

October 26, 1987

If the public misinterprets this Medicare mortality data as indicating the quality of care offered by hospitals, we are concerned that hospitals might be moved to attempt to improve their statistics by avoiding Medicare patients who are severely ill. Such patients might increasingly become the responsibility of hospitals "of last resort" like ours. This would disrupt continuity and availability of care for Medicare patients. Furthermore, since Medicare reimbursement is often most inadequate for the care of severely ill patients, such a shift would further challenge the financial viability of our institution and others like us.

Sincerely,

John Kissel

John Kissel, M. D.
Vice-President, Medical Affairs

JK/mb

ST MARYS
HEALTH
CENTER
100 St. Marys Medical Plaza
Jefferson City, MO 65101
314-635-7642

MEDICARE PROVIDER NUMBER: 26-0011

October 26, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D. C., 20201

Dear Sir:

We have been in receipt of the selected 1986 mortality information, specific to our institution, which you plan to publish in December, 1987. This data has been carefully reviewed by our Medical Staff Quality Assurance Committee Chairman, Quality Management Coordinator and Professional Medical Records and Utilization Review personnel.

As encouraged by you, we offer the following "concerns and comments" regarding the "intent/content" of your information as presented for publication:

INTENT/CONTENT OF DATA	CONCERNS OR COMMENTS RE. DATA
1. Statistics show the number of medicare patients admitted in 1986 and the actual percent of medicare patients who died within 30 days of their last admission in 1986.	1. Chronically ill patients are often admitted to a hospital more than once during a 12 month period. Your data is specific to the patients' last admission and whether he or she died within 30 days of that admission. We think it essential the public not confuse your mortality rate with an institution's actual inpatient mortality rate. The 900 patients identified by you actually contributed to 1336 admission occurrences for our institution. The difference in resulting mortality rates can be significant. This needs to be adequately clarified for appropriate interpretation.

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A MEMBER OF THE SISTERS OF ST. MARY HEALTH CARE SYSTEM
MO 138

INTENT/CONTENT OF DATA	CONCERNS OR COMMENTS RE. DATA
2. Predicted range of the percent of patients who would have been expected to die giving adjustments for patient mix.	2. Although you say you have taken into consideration the patient's age, you do not control for the anticipated death of those patients aged 78 and greater. Our mortality review data show that out of the 108 deaths you report as occurring in our medicare patient population, for 1986, 68 (or 64%) of these deaths occurred in patients aged 78 or greater. Providing age-specific mortality data allows the public accurate information so deaths are not assumed to occur at a premature age. Also, you do not make exception for the terminally ill patient and their desire for "no heroics".
3. Number of medicare patients who died within 30 days of their last admission to the hospital (your numerator for figuring the mortality rate) is not listed.	3. Number of deaths occurring (numerator data) needs to be provided so "all cases" on your report, are not mistaken for the number of patients dying within 30 days from their last admission. Also, no mention is made for identifying the patient who is admitted to one institution, transferred to another institution, and who dies within the 30 day period for both admissions. It is therefore conceivable that one patient's mortality can be recorded on more than one facility's report.
4. Additional patient-specific data was provided to us for checking the validity of the data used for analysis and reporting.	4. We found your data base to be reasonably accurate. Difference in overall numbers only equaled sixteen (16), a 3% error margin.
5. Some of the patients included in your report died after discharge. By your own admission, no attempt was made to correlate cause of death with hospitalization.	5. Twenty-one percent (21%) of our medicare patients died after discharge. Since no correlation between death and hospitalization was made, we request you state this fact for accurate consumer interpretation.
6. HCFA will make it clear that the information, on its own, is not a complete measure of the quality of care at an individual hospital . . . that, until we have developed additional statistical measures to deal with complex issues such	6. As a hospital accredited by the Joint Commission on the Accreditation of Hospitals (JCAH), we have long considered mortality review a necessary component of our patient care evaluation process. However, mortality rates, by themselves, do not measure the quality of care provided by an institution. They serve only as an indicator or guide for prompting peer review. The peer review process looks at

INTENT/CONTENT OF DATA	CONCERNS OR COMMENTS RE. DATA
as severity of illness, we cannot and do not recommend the use of the information by itself to make judgments about the quality of care in an individual hospital or to make comparisons among hospitals.	patient characteristics (which can differ significantly between patients) and compares the individual medical management provided to national standards of care (state-of-the-art medical care). Only through this peer review process can quality-of-care be assessed.
7. Data provided is presented on both an overall basis and for each of 16 diagnostic categories.	7. We have serious concerns regarding your methodology for reporting specific diagnostic category rates. Our mortality rate for the specific category of "sepsis" shows one case and a 100% mortality rate. Generally for statistics to be considered valid, a sufficient or minimum number of cases must be present. Furthermore, our one case represents a 94 year old patient who died within 5 1/2 hours of presenting to our emergency room. We recommend allowance of a "significant threshold" to control for short time periods which limits the number of measures a hospital can take to prevent death. Your definition criteria for the sepsis category, using only DRG 416 and 417, does not reflect the actual number of patients seen by hospitals for sepsis. Nationally recognized authorities (i.e., Centers for Disease Control (CDC), Department of Health & Human Services, and Public Health Services) acknowledge that sepsis may occur either in the absence of recognized underlying infections, or originate from an identified underlying site of infection. Your definition does not allow for the latter.

In summary, we question the usefulness of publishing this data since it does not deal with complex patient care issues and cannot be used to make judgements about the quality of care in an individual hospital.

Sincerely,

Charles Harris, Ph.D.
Executive Director

CH/jn
cc: Bill Thompson
Regional Vice-President
Western Region

Steve Owen
Chief Financial Officer

Harvey - FYI

St. Mary's Hospital
2800 Main Street
Kansas City, MO 64108
816-753-5700

Administrative Offices

September 11, 1987

William Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26676
Baltimore, Maryland 21201

Attention: HSQ-148-6NC, HCFA Mortality Data

Dear Dr. Roper:

Although the Health Care Financing Administration's continuing initiative to promote quality care is commendable, the release of hospitals' mortality data without the identification and explanation of reasons for the deaths will be misleading to the public. The vast majority of consumers will be unable to accurately interpret information about hospitals' overall post-admission mortality rates and specific mortality rates for certain medical conditions.

The release of mortality data for Medicare beneficiaries only is incomplete and does not inform consumers of the actual mortality rates for hospitals. Without additional information regarding patient mix, type and age of patients, physician practice patterns and many other indicators, consumers will be unable to make informed decisions. Therefore, the Health Care Financing Administration should not release hospitals' mortality data for Medicare beneficiaries.

Sincerely,

James M. Brophy

James M. Brophy
Executive Director

JMB/bf

St. Mary's Hospital of Blue Springs
A living resource.

October 28, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health And Human Services
Washington, DC 20201

Dr. Roper:

Attached please find an addendum to our comments to your upcoming report of mortality information.

I am requesting that the attached information be added to our earlier comments. As you requested, we have kept our comments brief.

Thank you for the opportunity to comment on this information. If you have any questions, or comments, please call me at 816-228-5900, ext. 400.

Cordially,

N. Gary Wages

N. Gary Wages
Executive Director

NGW/mtw

Enclosure

201 West R.D. Mize Road • Blue Springs, Missouri 64015 • 816-228-5900

HCFA/EXEC/DOCKET

A MEMBER OF THE SISTERS OF ST. MARY HEALTH CARE SYSTEM

St. Mary's Hospital of Blue Springs
A living resource.

October 28, 1987

ADDENDUM:

After further evaluation of our medical records, we have discovered discrepencies between our records and those of HCFA.

In the interest of brevity, this addendum lists only the numbers for the category "All Causes".

Our medical records list the following information for 1986 Medicare discharges at St. Mary's Hospital of Blue Springs.

Total Medicare Discharges - 1986	1341
Total Medicare Deaths	
- During Admission	71
- Within 30 days of Discharge	19
1986 Mortality Rate - All Causes	
- During Admission	5.29%
- Including Deaths Within 30 days after Discharge	6.71%

201 West R.D. Mize Road • Blue Springs, Missouri 64015 • 816-228-5900

A MEMBER OF THE SISTERS OF ST. MARY HEALTH CARE SYSTEM

St. Mary's Hospital of Blue Springs
A living resource.

October 13, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health & Human Services
Washington, D.C. 20201

Dear Dr. Roper:

In response to your request for comments on the 1986 mortality information, please find our enclosed comments.

As our comments indicate, we have reviewed our medical records and report that the numbers listed for St. Mary's Hospital of Blue Springs are correct.

Our comments have been placed on our letterhead and we have included our Medicare provider number. Following your suggestion, we have kept the comments brief and direct. We ask that they are included in the final publication.

Thank you for the opportunity to respond to this information in advance of its publication. If you have any questions, please do not hesitate to contact me at (816) 228-5900, ext. 400.

Cordially,

N. Gary Wages
Executive Director

NGW/cjh

201 West R.D. Mize Road • Blue Springs, Missouri 64015 • 816-228-5900

A MEMBER OF THE SISTERS OF ST. MARY HEALTH CARE SYSTEM

St. Mary's Hospital of Blue Springs
A living resource.

October 13, 1987

COMMENTS:

After review of our medical records, we can report that the numbers listed here for St. Mary's Hospital of Blue Springs are correct.

However, we believe the release of such statistical data, irrespective of local environment, is inappropriate. This model does not consider a wide range of factors that can have a significant impact on mortality. This information addresses more the nature of the patient and principle diagnosis than it does the quality of care the patient receives.

Healthcare should not be measured by the number of patients that die, but rather by careful study and evaluation of why they do.

MEDICARE PROVIDER NO.: 260193

201 West R.D. Mize Road • Blue Springs, Missouri 64015 • 816-228-5900

A MEMBER OF THE SISTERS OF ST. MARY HEALTH CARE SYSTEM

SAINT
VINCENT'S
HOSPITAL

801 Lincoln Avenue
Monett, MO 65708
(417) 235-3144

October 23, 1987

William L. Roper, M.D.
Health Care Financing Administration
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper;

Enclosed is the corrected copy of the Hospital Mortality Information submitted to us for our review and correction.

The listing of the number of Medicare patients admitted and the additional information listed for the Medicare patients who were treated in our hospital has been checked and found to be correct.

The incorrect report is the summary report of the total cases for all causes and the Actual Mortality Rate. We would appreciate a reply as to how these totals and percents were calculated.

If there is any other information needed to complete this report, please notify me and I will submit the additional information.

Sincerely,

Sister M. Vivian RRA.

Sister M. Vivian, RRA
Director of Medical Records.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

HOSPITAL - 260012 ST. VINCENT'S HOSPITAL MONETT, MO.

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	631	13%	10 to 17%
CA - CANCER	6	7%	7 to 68%
CE - CEREBROVASCULAR ACCIDENTS	10	12%	15 to 50%
EY - OPHTHALMOLOGIC DISEASE	0	0%	0 to 100%
GC - GASTROINTESTINAL CATASTROPHES	0	0%	2 to 50%
GI - GASTROINTESTINAL DISEASE	2	2%	2 to 16%
GU - UROLOGIC DISEASE	0	0%	0 to 39%
GY - GYNECOLOGIC DISEASE	0	0%	0 to 100%
HL - LOW-RISK HEART DISEASE	3	4%	2 to 14%
HN - SEVERE CHRONIC HEART DISEASE	14	17%	14 to 38%
HS - SEVERE ACUTE HEART DISEASE	10	12%	25 to 66%
ME - METABOLIC/ELECTROLYTE DISTURBANCES	6	7%	7 to 34%
OP - ORTHOPEDIC DISORDERS	1	1%	0 to 21%
PM - PULMONARY DISEASE	18	22%	12 to 30%
RN - RENAL DISEASE	5	6%	11 to 60%
SE - SEPSIS	1	1%	6 to 76%
TR - SEVERE TRAUMA	1	1%	1 to 67%
UN - ALL OTHER CONDITIONS	5	6%	

MISSOURI BAPTIST HOSPITAL-SULLIVAN

751 Sappington Bridge Road
Sullivan, Missouri 63080
314/468-4186

October 15, 1987

William L. Roper, M.D.
Administrator
HEALTH CARE FINANCING ADMINISTRATION
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

In answer to your letter of September 21, 1987, we have reviewed your data regarding our Medicare admissions. In reviewing this data we find there are some discrepancies which are as follows:

1. On the information given to us for Sullivan Community Hospital (now Missouri Baptist Hospital of Sullivan) under the first heading "All Causes" you list the total number of cases or Medicare admissions for 1986 as 443 whereas our records verify a total of 776 Medicare patients admitted for this period. This difference of 333 Medicare admissions would not allow you to give an accurate mortality rate for our hospital.

   This would change the total mortality rate from the 16% which you have listed to an actual rate of 10.9%.

   We trust this error will be corrected prior to information being released.

2. In the comparison of diagnostic categories, we find some slight variation in the numbers but attribute this to those deaths which occurred within the thirty days following discharge from our hospital.

3. We ask that if this type of information is to be released and also used by the PRO for intensified review, that a method of measuring the severity of illness be developed so that more accurate comparisons can be made of the information.

You will note a name change as of September 15, 1987, Sullivan Community Hospital has been taken over by Missouri Baptist Hospital of Sullivan and at that time the Medicare I. D. #260115-A.was valid.

We would appreciate your comments regarding our discrepancies.

Sincerely,

Edward R. Link
Administrator

ERL:js

St. Louis University
Medical Center

Health Services Division
1325 S. Grand Blvd., St. Louis, Mo. 63104
314/577-8000
The University Hospital

October 27, 1987

TO: William L. Roper, M.D.
Administrator
Health Care Financing Administration
Department of Health & Human Services
HHH Building, Room 314-G
200 Independence Avenue, SW
Washington, D.C. 20201

FROM: The University Hospital I.D. NO. 260105
1325 South Grand Avenue
St. Louis, MO 63104

SUBJECT: Mortality Report

1. Correction

a. We are unable to find evidence that two patients listed in your report were patients of this hospital. They are:

Patient ID#	Surname	Diagnostic Category	Age	Sex	Date Adm	Date Disch	Date Death	Prin Diag	Prin Proc
[redacted]					4/19/86	4/28/86	4/28/86	4275	8703
					5/13/86	6/3/86	6/7/86	4828	----

b. Actual mortality for Category HS, after correction, is 45%.
Actual mortality for Category PN, after correction, is 18%.

2. Comment

a. Actual mortality for all categories is within or below the predicted range.

b. 46% of deaths in Category HS occurred in patients transferred from another hospital.

Sincerely,

Herbert B. Schneiderman
Executive Director

Ralph A. Kinsella, M.D.
Medical Director

HBS/RAK:mff

Trinity Lutheran Hospital
3030 Baltimore Avenue
Kansas City, Missouri 64108
(816) 753-4600

October 21, 1987

William Roper, M.D., Administrator
Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26676
Baltimore, MD 21201

Attention: HSQ-148-6NC

Dear Dr. Roper:

At Trinity Lutheran Hospital, quality of care is of the upmost concern to the Governing Board, the Management and the Medical Staff. Trinity also believes that consumers should have access to information on the quality of care that is available to them. This information on quality should allow a consumer to make like comparisons on all providers of care. The mortality data published by the Health Care Financing Administration (HCFA) does not provide this to consumers. This data is more appropriate for use by hospitals to focus reviews of care rendered. In turn, consumers should focus on the types and extent of quality assurance and peer review activities performed at each health care institution.

At Trinity, there are eight peer review committees of the medical staff and an overall quality assurance program for the hospital and medical staff. Every death in the hospital is reviewed on a monthly basis by a group of physicians, administration and ancillary personnel. Reviews are also performed monthly on service - specific quality indicators (e.g., blood transfusion reactions; drug reactions, etc.). Emphasis is focused on clinical performance. Finally, numerous areas are monitored on a continuous basis to identify areas where problems could occur. Information resulting from these reviews are then passed onto additional medical staff and board committees. Concerns needing attention (directly related to patient care) are addressed immediately and are resolved. This places Trinity in a pro-active stance toward the assurance of quality care with continuous monitoring and correction of systems, etc., before problems occur.

The HCFA data does not take any of the above into account, and is statistically oriented. The HCFA data assumes that each hospital's patients are "average" except with respect to a few characteristics which they have listed. Measures of severity are not included in

their model, e.g., how ill the patient was at the time of admission; whether the patient was transferred to the hospital from a nursing home; whether the patient was receiving treatment at home prior to admission; or whether the patient had a terminal illness. This is particularly important to Trinity because Trinity is mainly a "specialty" hospital receiving a large portion of its patients through referrals from: physicians in other cities and states; other hospitals; nursing homes; etc. Trinity's major specialties are oncology (cancer) and cardiology and cardiovascular surgery. Because of its specialty services and referral orientation, Trinity treats very sick patients. This can be seen through the HCFA case mix index measurement which defines a case mix level of approximately 1.0 as an "average" mix of patients requiring similar resources. In 1986, Trinity's case mix was 1.43 (second highest in the city), which means that patients coming to Trinity are approximate 43% more severe than those in other hospitals. Again, this is expected based on the specialties at Trinity and the referral network among health care professionals.

The HCFA mortality data should also be investigated for accuracy. The data published for Trinity accounts for an incorrect number of actual medicare deaths and an incorrect number of total medicare cases by diagnostic category. Using the same methodology the Health Care Financing Administration used for medicare patients dying in the hospital, our figures show the following:

Diagnostic	Total Medicare Cases	Total Medicare Deaths	Actual Medicare Mortality Rate	HCFA Calculated Mortality Rate
CA	393	66	17%	23%
CE	119	15	13%	18%
GC	55	5	9%	11%
HM	181	17	9%	16%
HS	92	15	16%	26%
ME	69	0	0%	0%
PN	223	21	9%	15%
SE	55	13	24%	38%

It should also be noted that the HCFA mortality data is only for medicare patients and does not reflect Trinity's overall rates with a specific diagnosis. Because we are looking at medicare patients, many of them are elderly, (HCFA data shows Trinity's average age of the medicare patient who died approximately 80 years old), and have several life threatening problems at once. For example, many of the medicare patients in the category of "sepsis" were actually cancer patients with sepsis as a factor of their disease, but their last admission was for sepsis, so they were categorized as such as opposed to the truly more complicated diagnosis of cancer. Each of the

medicare mortality patient charts were reviewed through Trinity's peer review and quality assurance mechanisms explained earlier. These reviews showed that all the deaths were expected and explained by the patient's primary and secondary condition and related complications. This includes the patients who died outside the hospital, many of whom were cancer patients whose condition was terminal. Patients may die outside the hospital for other reasons as well, e.g., a patient in need of a heart/lung transplant who after several medical opinions was determined to be an inoperable candidate -- leaving the patient with a terminal prognosis. It is not uncommon for terminal patient to request to die at home. Currently, many patients have completed living wills which may request that they not be resuscitated or have any heroic medical measures taken by use of elaborate equipment, etc., when they reach a certain point in their illness. This along with other factors mentioned can effect a patient's outcome.

As you can see, mortality rates by themselves will not totally serve the purpose to the consumer as intended by HCFA. Quality assurance and peer review mechanisms/systems in health care institutions should be a focus. Currently, the American Hospital Association and other organizations, including the Joint Commission on Accreditation of Health Care Organizations are investigating methods of evaluating hospital quality that rely on measures other than just mortality rates. Trinity Lutheran Hospital looks forward to the results of those efforts and hopes that an accurate measure of quality can be established for the consumer's reference.

I thank you for the opportunity to respond.

Respectfully,

Patrick R. Garrett
Chief Executive Officer

PG/smm

The University of Health Sciences
2105 Independence Boulevard • Kansas City, Missouri 64124/816-283-2000

October 27, 1987

William Roper, M.D.
Health Care Financing Administrator
Department of Health and Human Services
P. O. Box 26676
Baltimore, Maryland 21201

Attention: HSQ-148-6NC

Dear Dr. Roper:

In response to the HCFA Medicare Mortality Data received September 21, 1987, University Hospital's actual mortality rate of 14% (71 deaths from all causes) fell within the range of predicted mortality rates of 10-18% for all causes. The 71 deaths occurred in patients with an average age of 78 years old and who were suffering from an acute, chronic, or terminal condition, such as sepsis, renal disease, acute heart disease, cerebral vascular accident, or cancer.

In reviewing the data, I have a few overall concerns and questions regarding its validity:

- There were five instances where the date of death on the mortality report differed from the date of death as reported on the record of death.

- One patient was listed as having expired prior to the date shown as date of discharge.

- According to the report, 15 of the deaths at University Hospital were post discharge. Upon analysis of the data, it was discovered that there were only 12 deaths outside of the hospital. The 3 deaths in question actually did occur within the hospital.

These are a few examples of incorrect information reported which invalidates the data. If these types of statistical errors occurred, what other errors are there in the mortality data?

Of the 12 deaths occurring outside the hospital, the following data were gathered:

- Sixty-six percent (8 out of 12) died after being discharged to skilled nursing facilities. All of the patients had varying degrees of self-care deficits, due to chronic or terminal conditions or to the process of recovery from an acute condition.

Age	Cause of Death	Health Problems
66	Cardiac Arrest	Cancer
90	Cardiac Arrest	Pneumonia
67	Cardiac Arrest	Renal Failure
76	Cardiac Arrest	Heart Disease
73	Cardiac Arrest	Heart Disease
75	Cardiac Arrest	Post CVA
97	Cardiac Arrest	Electrolyte Metabolic Disease
73	Cardiac Arrest	Electrolyte Metabolic Disease

- Thirty-three percent (4 out 12) died after being discharged home. The patients had been treated in the hospital for chronic or terminal conditions. Two of these patients died from cardiac arrest from chronic heart conditions. University Hospital was unable to obtain information on the cause of death of the other two patients.

Another point of concern is the number of patients who died on the same day as admission. There were 7 out of 71 in this category. If that number of patients were factored out, the mortality rate for University Hospital would decrease from 14% to 12.8%. Additionally, if the patients who died within 48 hours of admission were eliminated, the rate would further decrease to 10.2%.

On discovering discrepancies in the data provided by HCFA, I must express concern about the accuracy and validity of the data and urge caution on how this information may be used.

It appears that local newspapers may rank mortality rates of the various hospitals in this community and imply in this ranking a relationship between the quality of care rendered and the published mortality rate.

Again I must point out that drawing conclusions from incomplete and inaccurate data is in no one's best interest.

Sincerely,

Wayne T. Miller

Wayne T. Miller
Administrator

Montana

MT-1

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
BARRETT MEMORIAL HOSP DILLON MT 59725	MT-7	192	11	9-20	8	63	9-68	6	17	7-72	[illegible]	13	3-57	9	0	5-58	1	100	1-97	6	0	3-66	36	14	10-38
BIG HORN COUNTY MEM HOSP HARDIN MT 59034	MT-8	123	14	6-19	2	50	1-89	4	25	4-78	6	17	4-67	5	40	7-75	3	67	5-86	2	50	0-91	15	20	5-46
BIG SANDY MEDICAL CENTER BIG SANDY MT 59520	MT-9 *	34	12	5-29	.	.		1	0	0-97	.	.		.	.		1	100	3-99	1	0	0-99	[illegible]	38	7-63
BOZEMAN DEACONESS HOSP BOZEMAN MT 59715	MT-10 *	685	10	8-15	67	16	13-36	21	43	14-52	18	11	4-40	24	13	8-40	20	35	22-63	11	9	2-48	77	13	11-31
BROADWATER HEALTH CTR TOWNSEND MT 59644	MT-11 *	71	14	9-27	1	0	0-97	5	0	11-82	.	.		5	40	3-70	3	33	5-85	2	0	2-90	18	22	8-47
CARBON CO MEM HOSP RED LODGE MT 59068	MT-12 *	174	22	11-23	3	67	8-90	6	50	8-72	3	0	0-84	11	45	8-57	9	56	13-70	6	33	2-64	43	21	13-39
CENTRAL MONTANA HOSPITAL LEWISTOWN MT 59457	MT-13	389	11	7-15	16	6	6-46	7	71	8-69	5	20	2-69	12	17	6-52	14	64	19-67	3	0	1-82	41	12	8-33
CHOUTEAU COUNTY DIST HOSP FORT BENTON MT 59442	MT-14 *	54	13	7-26	3	67	5-86	5	20	6-75	1	0	0-98	3	33	3-82	1	0	2-98	.	.		[illegible]	0	2-55
CLARK FORK VALLEY HOSP PLAINS MT 59859	MT-15 *	144	12	7-19	9	22	4-55	7	14	8-68	1	0	0-100	9	11	6-59	2	0	4-93	1	0	0-97	21	29	9-45
COLUMBUS HOSP GREAT FALLS MT 59403	MT-16 *	1500	9	8-15	125	33	22-42	35	26	15-45	23	9	3-35	59	22	13-35	36	33	21-52	19	16	7-45	127	9	13-29
COMM HOSP OF ANACONDA ANACONDA MT 59711	MT-17 *	327	9	7-17	13	31	13-62	11	55	9-59	14	0	4-46	20	25	8-44	6	17	10-75	17	12	4-42	48	8	8-31
COMMUNITY MEM HOSP SIDNEY MT 59270	MT-18 *	337	12	9-18	13	31	16-66	6	50	8-73	10	10	6-57	12	17	7-53	13	54	18-68	12	[illegible]	3-47	44	7	9-33
DAHL MEMORIAL HOSPITAL EKALAKA MT 59324	MT-19 *	10	20	4-52	1	0	2-98	.	.		2	50	0-93	.	.		1	100	3-99	.	.		1	0	0-98
DANIELS MEM HOSP SCOBEY MT 59263	MT-20 *	34	12	8-35	3	33	4-84	4	25	3-76	.	.		3	0	2-81	[illegible]	50	9-84	.	.		4	0	3-76
DEACONESS MED CTR OF BILLI BILLINGS MT 59103	MT-21	2441	[illegible]	7-14	239	21	18-34	55	25	17-41	30	3	7-36	77	21	15-35	78	38	26-49	13	0	3-46	153	12	13-28
FALLON COUNTY MED COMLEX - BAKER MT 59313	MT-22	40	20	5-28	3	100	4-84	1	100	1-97	2	50	0-91	3	33	2-82	2	50	3-91	1	0	0-98	5	0	1-68
FRANCES MAHON DEACONESS HO GLASGOW MT 59230	MT-23	178	12	7-18	6	50	10-76	7	57	7-67	4	50	2-74	13	15	6-50	6	67	11-77	1	0	0-98	20	0	6-40
GARFIELD COUNTY HEALTH CEN JORDAN MT 59337	MT-24	1	0	0-100	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
GLACIER CO MEDICAL CTR CUT BANK MT 59427	MT-25 *	101	11	5-19	3	67	1-81	1	0	0-97	4	25	1-74	7	29	5-64	4	50	7-82	4	0	0-78	11	[illegible]	5-53
GLENDIVE COMMUNITY HOSP GLENDIVE MT 59330	MT-26 *	221	13	8-19	14	50	17-65	4	0	5-79	7	14	2-59	11	36	7-56	3	67	6-87	1	0	0-100	35	20	9-37
GRANITE COUNTY MEMORIAL HO PHILIPSBURG MT 59858	MT-27 *	36	14	4-27	.	.		2	50	4-92	.	.		2	0	1-89	.	.		.	.		10	30	4-52
HOLY ROSARY HOSP MILES CITY MT 59301	MT-28	447	13	8-17	43	33	12-40	13	54	12-59	15	20	3-42	25	28	10-43	14	71	16-63	6	0	5-69	41	17	7-31
KALISPELL REGIONAL HOSPITA KALISPELL MT 59901	MT-29 *	1206	[illegible]	7-14	113	24	15-35	35	34	16-46	33	21	5-32	44	30	12-37	40	35	21-51	19	0	4-40	102	14	11-27
LIBERTY COUNTY HOSP CHESTER MT 59522	MT-30 *	75	15	7-24	4	25	8-83	1	0	1-97	2	50	1-89	1	0	1-97	[illegible]	50	4-92	3	0	0-84	15	13	8-50
LIVINGSTON MEMORIAL HOSP LIVINGSTON MT 59047	MT-31 *	377	15	9-18	23	48	13-50	11	0	9-59	19	11	4-39	14	21	8-51	13	46	16-66	3	0	0-82	50	32	12-37
MADISON VALLEY HOSP ENNIS MT 59729	MT-32 *	62	13	6-24	1	100	0-99	.	.		3	0	0-84	6	50	8-72	.	.		3	0	1-81	11	18	6-54

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
BARRETT MEMORIAL HOSP DILLON MT 59725	5	40	6-77	4	0	4-78	3	0	0-86	1	0	0-100	22	5	1-28	1	0	0-100	.	.		13	8	0-40	9	0	0-93
BIG HORN COUNTY MEM HOSP HARDIN MT 59034	3	33	1-82	.	.		.	.		.	.		26	8	1-25	.	.		3	0	0-100	11	0	0-44	6	0	0-97
BIG SANDY MEDICAL CENTER BIG SANDY MT 59520	.	.		.	.		1	0	0-99	.	.		2	0	0-99	.	.		.	.		1	0	0-99	1	0	0-100
BOZEMAN DEACONESS HOSP BOZEMAN MT 59715	.	.		10	20	12-67	26	12	1-26	.	.		61	5	1-15	18	11	0-34	8	0	0-96	39	3	1-18	76	0	0-10
BROADWATER HEALTH CTR TOWNSEND MT 59644	1	0	0-97	.	.		.	.		.	.		6	0	0-70	2	0	0-91	.	.		6	0	0-73	3	0	0-100
CARBON CO MEM HOSP RED LODGE MT 59068	2	0	0-91	3	100	9-91	2	0	0-89	.	.		21	14	0-28	2	0	0-96	.	.		13	8	0-39	2	0	0-100
CENTRAL MONTANA HOSPITAL LEWISTOWN MT 59457	5	20	4-74	5	20	10-81	22	5	2-30	1	0	0-100	56	7	1-15	18	0	0-36	7	0	0-97	47	9	1-17	31	3	0-21
CHOUTEAU COUNTY DIST HOSP FORT BENTON MT 59442	1	0	1-97	.	.		.	.		.	.		4	0	0-83	1	0	0-100	.	.		2	50	0-99	3	33	0-91
CLARK FORK VALLEY HOSP PLAINS MT 59859	2	50	4-93	1	0	0-97	7	0	1-57	.	.		12	0	0-43	4	0	0-90	.	.		19	16	1-30	14	0	0-57
COLUMBUS HOSP GREAT FALLS MT 59403	17	29	7-52	7	57	14-78	43	7	3-23	8	0	0-100	155	5	2-10	94	6	2-14	9	0	0-100	90	8	2-11	152	2	0-6
COMM HOSP OF ANACONDA ANACONDA MT 59711	3	67	1-82	1	0	0-97	2	50	1-89	.	.		61	2	1-14	11	0	0-45	2	0	0-100	10	10	0-51	15	7	0-48
COMMUNITY MEM HOSP SIDNEY MT 59270	6	33	6-71	5	60	9-80	8	13	3-57	1	0	0-100	35	9	2-22	6	17	0-64	3	0	0-100	34	0	1-20	29	0	0-25
DAHL MEMORIAL HOSPITAL EKALAKA MT 59324	.	.		.	.		.	.		.	.		.	.		.	.		.	.		2	0	0-100	1	0	0-100
DANIELS MEM HOSP SCOBEY MT 59263	.	.		.	.		.	.		.	.		5	0	0-91	2	0	0-100	.	.		3	0	0-91	1	0	0-100
DEACONESS MED CTR OF BILLI BILLINGS MT 59103	27	22	11-49	5	60	11-82	49	4	2-19	44	0	0-34	229	3	3-9	105	2	1-12	31	0	0-54	323	4	3-8	230	1	0-5
FALLON COUNTY MED COMLEX - BAKER MT 59313	1	100	0-97	.	.		.	.		.	.		2	0	0-96	1	0	0-99	.	.		3	0	0-89	4	0	0-94
FRANCES MAHON DEACONESS HO GLASGOW MT 59230	1	0	1-98	1	0	1-97	1	0	0-100	1	0	0-100	21	5	0-28	6	17	0-67	.	.		16	13	1-33	12	8	0-65
GARFIELD COUNTY HEALTH CEN JORDAN MT 59337	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.	
GLACIER CO MEDICAL CTR CUT BANK MT 59427	1	0	0-97	.	.		1	0	0-100	.	.		6	0	0-79	3	0	0-99	.	.		4	0	0-89	6	0	0-97
GLENDIVE COMMUNITY HOSP GLENDIVE MT 59330	4	50	5-80	4	0	4-79	2	0	0-96	.	.		18	0	0-31	7	0	0-75	1	0	0-100	24	8	1-25	10	10	0-72
GRANITE COUNTY MEMORIAL HO PHILIPSBURG MT 59858	3	0	0-87	.	.		1	0	0-100	.	.		2	0	0-98	.	.		.	.		7	0	0-63	2	0	0-100
HOLY ROSARY HOSP MILES CITY MT 59301	4	25	5-80	7	57	11-74	11	0	0-45	.	.		47	2	1-17	18	0	1-33	7	0	0-100	17	6	1-32	37	0	0-17
KALISPELL REGIONAL HOSPITA KALISPELL MT 59901	7	43	8-71	5	40	13-85	37	5	3-24	17	0	0-89	134	3	1-9	85	1	1-13	21	0	0-59	64	3	1-14	92	1	0-9
LIBERTY COUNTY HOSP CHESTER MT 59522	2	50	1-90	.	.		2	0	0-96	.	.		12	25	0-42	2	0	0-96	.	.		2	50	0-95	3	0	0-96
LIVINGSTON MEMORIAL HOSP LIVINGSTON MT 59047	5	0	3-72	5	60	9-80	14	0	2-39	2	0	0-100	56	7	1-14	6	0	1-62	1	0	0-100	26	4	1-24	11	0	0-63
MADISON VALLEY HOSP ENNIS MT 59729	1	100	1-97	.	.		.	.		.	.		9	0	0-50	.	.		.	.		7	0	0-65	3	0	0-99

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MARCUS DALY MEM HOSP HAMILTON MT 59840	MT-33 *	455	14	7-15	28	43	13-47	15	53	11-55	18	17	6-44	15	40	8-50	10	60	16-71	8	13	6-64	43	21	7-30
MCCONE COUNTY HOSP CIRCLE MT 59215	MT-34 *	48	13	4-23	3	67	7-88	1	0	0-97	.	.		4	50	2-74	1	100	2-98	.	.		1	0	0-98
MINERAL COUNTY HOSP SUPERIOR MT 59872	MT-35 *	62	16	6-24	6	67	6-70	.	.		3	33	1-81	4	50	1-74	1	0	1-97	3	33	1-81	9	11	5-57
MISSION VALLEY HOSP SAINT IGNATIUS MT 59865	MT-36 *	65	9	5-22	.	.		2	50	3-91	.	.		2	0	1-89	.	.		2	0	1-89	18	11	7-45
MISSOULA COMMUNITY HOSPITA MISSOULA MT 59801	MT-37 *	735	8	5-13	41	22	14-42	18	44	11-52	6	0	2-63	16	31	10-52	7	43	11-73	6	17	2-65	48	27	11-35
MISSOULA GENERAL HOSPITAL MISSOULA MT 59802	MT-38 *	243	11	8-18	18	44	10-51	4	25	6-81	10	20	4-54	11	9	7-56	8	13	14-74	2	50	1-89	25	28	11-46
MONTANA DEACONESS MEDICAL GREAT FALLS MT 59401	MT-39 *	1880	9	8-15	139	22	19-38	47	19	19-46	33	24	7-35	52	15	13-36	82	43	29-52	11	18	5-54	151	17	11-25
MONTANA STATE HOSP (GALEN GALEN MT 59756	MT-40 *	82	13	2-15	.	.		.	.		.	.		3	67	1-81	1	0	0-97	1	0	0-98	9	22	2-51
MOUNTAINVIEW MEMORIAL HOSP WHITE SULPHUR SPRINGS MT 59645	MT-41 *	36	25	7-32	3	100	6-87	1	100	1-97	1	100	0-98	4	25	5-79	2	50	3-92	.	.		5	20	2-69
NORTH VALLEY HOSPITAL WHITEFISH MT 59937	MT-42 *	301	16	9-19	22	32	13-51	16	31	10-52	9	11	5-58	9	33	6-59	14	36	19-67	6	17	3-65	37	16	11-39
NORTHERN MONTANA HOSP HAVRE MT 59501	MT-43 *	486	14	8-17	30	20	10-42	14	29	13-59	9	11	4-56	17	24	9-49	14	29	17-64	10	20	2-51	53	30	12-35
PHILLIPS CO HOSP MALTA MT 59538	MT-44 *	148	13	9-22	3	67	8-90	2	0	1-89	3	33	1-81	6	17	3-65	3	33	3-84	5	0	0-70	34	24	14-44
PHS INDIAN HOSP BIG HORN MT 59010	MT-45 *	16	6	4-40	1	0	3-100	.	.		.	.		1	0	1-97	.	.		.	.		3	0	0-82
PHS INDIAN HOSP HARLEM MT 59526	MT-46 *	23	9	5-37	.	.		2	50	1-89	.	.		2	0	1-89	.	.		.	.		7	0	4-63
PHS INDIAN HOSPITAL BROWNING MT 59417	MT-47 *	29	14	5-33	1	100	0-97	.	.		1	0	0-98	4	0	2-75	2	50	4-93	.	.		5	0	1-68
PONDERA MEDICAL CENTER CONRAD MT 59425	MT-48 *	102	13	8-22	3	67	1-81	6	33	6-69	8	13	6-63	8	38	6-61	2	50	4-92	4	25	1-74	10	20	4-53
POPLAR COMMUNITY HOSPITAL POPLAR MT 59255	MT-49	36	11	3-25	1	0	0-98	1	0	0-97	2	50	0-91	.	.		.	.		3	33	0-84	6	0	3-66
POWELL CO MEM HOSP DEER LODGE MT 59722	MT-50 *	111	17	8-22	7	43	2-60	4	25	7-81	6	17	2-63	7	57	5-64	4	75	11-87	9	11	4-57	15	13	6-47
PRAIRIE COMMUNITY HOSP TERRY MT 59349	MT-51 *	21	5	4-37	.	.		1	0	1-97	.	.		2	50	1-89	.	.		.	.		4	0	1-74
ROOSEVELT MEM HOSP CULBERTSON MT 59218	MT-52 *	56	11	6-25	3	33	3-84	2	0	1-89	2	0	1-89	2	50	1-89	3	0	8-89	2	0	0-92	8	0	4-58
ROSEBUD COMMUNITY HOSP FORSYTH MT 59327	MT-53	92	16	8-24	4	50	5-79	3	67	4-84	1	100	3-99	6	50	5-69	3	0	7-88	4	50	1-74	14	7	5-47
ROUNDUP MEMORIAL HOSP ROUNDUP MT 59072	MT-54 *	61	16	7-26	2	50	3-91	2	0	2-89	1	0	0-98	6	33	5-68	3	100	9-90	2	50	0-92	10	10	4-54
RUBY VALLEY HOSP SHERIDAN MT 59749	MT-55	64	6	6-24	3	33	3-83	3	0	2-82	3	0	2-82	.	.		4	50	14-90	.			9	0	3-54
SHERIDAN MEM HOSP PLENTYWOOD MT 59254	MT-56 *	180	9	9-21	12	42	7-55	8	25	8-66	10	10	3-52	17	6	9-49	9	33	15-72	1	0	0-100	23	13	7-40
ST JAMES COMMUNITY HOSPITA BUTTE MT 59701	MT-57	1557	11	7-14	102	21	19-39	49	35	16-41	39	15	5-30	51	25	13-36	40	43	22-52	20	10	3-37	140	11	10-25
ST JOHNS LUTHERAN HOSP LIBBY MT 59923	MT-58 *	185	14	7-19	9	44	11-67	8	38	6-62	6	50	3-66	12	25	4-48	4	50	6-81	3	33	4-84	29	21	8-38

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
MARCUS DALY MEM HOSP HAMILTON MT 59840	6	17	10-78	2	100	3-91	21	10	1-29	1	0	0-100	59	5	1-14	10	30	1-47	4	0	0-100	28	0	1-23	35	3	0-20
MCCONE COUNTY HOSP CIRCLE MT 59215	.	.		.	.		1	0	0-100	.	.		3	0	0-86	2	0	0-100	.	.		3	33	0-85	6	0	0-93
MINERAL COUNTY HOSP SUPERIOR MT 59872	.	.		.	.		.	.		.	.		4	0	0-77	.	.		1	0	0-100	5	0	0-79	2	50	0-97
MISSION VALLEY HOSP SAINT IGNATIUS MT 59865	.	.		.	.		.	.		.	.		10	10	0-47	4	0	0-80	.	.		2	0	0-98	6	0	0-97
MISSOULA COMMUNITY HOSPITA MISSOULA MT 59801	7	14	4-65	6	33	10-76	26	19	3-29	36	0	0-51	84	4	2-13	30	0	1-23	9	0	0-100	18	0	1-31	104	1	0-8
MISSOULA GENERAL HOSPITAL MISSOULA MT 59802	2	0	0-91	2	50	3-91	6	33	0-65	6	0	0-100	27	0	1-23	13	0	1-40	3	0	0-99	12	0	0-43	17	0	0-45
MONTANA DEACONESS MEDICAL GREAT FALLS MT 59401	9	22	6-62	13	31	16-66	49	12	4-23	14	0	0-97	199	4	3-10	93	1	1-13	23	0	0-92	168	4	2-9	166	1	0-6
MONTANA STATE HOSP (GALEN GALEN MT 59756	1	0	0-98	.	.		.	.		.	.		7	14	0-75	.	.		.	.		1	100	0-100	1	0	0-100
MOUNTAINVIEW MEMORIAL HOSP WHITE SULPHUR SPRINGS MT 59645	.	.		.	.		.	.		.	.		2	0	0-100	1	0	0-100	.	.		6	17	0-69	.	.	
NORTH VALLEY HOSPITAL WHITEFISH MT 59937	2	0	1-90	5	80	5-73	16	6	1-36	.	.		39	15	2-20	4	0	0-78	3	0	0-100	18	0	0-31	25	0	0-44
NORTHERN MONTANA HOSP HAVRE MT 59501	3	100	8-89	3	33	4-85	11	18	2-45	7	0	0-100	62	8	2-16	7	0	0-64	1	0	0-100	22	9	1-26	30	3	0-27
PHILLIPS CO HOSP MALTA MT 59538	2	0	3-91	.	.		1	0	1-97	.	.		20	5	2-32	2	50	0-90	1	0	0-100	7	29	0-60	6	17	0-77
PHS INDIAN HOSP BIG HORN MT 59010	.	.		.	.		1	0	0-99	1	0	0-100	3	0	0-83	.	.		.	.		.			1	0	0-100
PHS INDIAN HOSP HARLEM MT 59526	.	.		.	.		.	.		1	0	0-100	1	0	0-100	1	0	0-97	.	.		1	0	0-100	1	0	0-100
PHS INDIAN HOSPITAL BROWNING MT 59417	1	0	0-97	.	.		.	.		1	0	0-100	1	0	0-100	1	0	0-97	.	.		2	0	0-95	2	0	0-100
PONDERA MEDICAL CENTER CONRAD MT 59425	.	.		1	0	1-97	.	.		.	.		8	0	0-59	4	25	0-79	.	.		10	0	0-47	4	0	0-75
POPLAR COMMUNITY HOSPITAL POPLAR MT 59255	1	0	0-99	.	.		.	.		.	.		2	50	0-92	4	0	0-89	.	.		4	0	0-90	1	0	0-100
POWELL CO MEM HOSP DEER LODGE MT 59722	1	100	0-97	1	100	0-97	1	0	0-100	.	.		8	0	0-54	.	.		.	.		5	0	0-79	6	0	0-87
PRAIRIE COMMUNITY HOSP TERRY MT 59349	1	0	1-97	.	.		.	.		.	.		1	0	0-98	.			.	.		.	.		1	0	0-100
ROOSEVELT MEM HOSP CULBERTSON MT 59218	4	75	2-76	.	.		1	0	0-100		.		6	0	0-77	1	0	0-100	.	.		4	0	0-90	3	0	0-94
ROSEBUD COMMUNITY HOSP FORSYTH MT 59327	3	67	2-82	3	67	6-87	.	.		.	.		3	0	0-97	1	0	0-98	.			10	0	0-50	7	0	0-84
ROUNDUP MEMORIAL HOSP ROUNDUP MT 59072	1	0	0-99	1	0	3-99		.		.	.		5	0	0-71	2	0	0-99	.	.		6	0	0-68	2	0	0-100
RUBY VALLEY HOSP SHERIDAN MT 59749	.	.			.		.	.		.	.		9	11	0-52	2	0	0-100	.	.		5	0	0-80	4	0	0-100
SHERIDAN MEM HOSP PLENTYWOOD MT 59254	2	0	0-94	9	0	8-63	5	0	0-71	.	.		16	0	0-37	.	.		.	.		12	0	0-45	14	0	0-78
ST JAMES COMMUNITY HOSPITA BUTTE MT 59701	6	0	7-74	12	42	15-66	56	14	3-19	3	0	0-100	224	6	2-9	96	4	1-13	16	0	0-94	78	13	2-13	98	5	0-8
ST JOHNS LUTHERAN HOSP LIBBY MT 59923	1	0	0-97	2	50	2-90	7	14	0-59	.	.		21	0	1-28	1	0	0-100	.	.		14	7	0-38	9	0	0-63

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST JOSEPH HOSPITAL POLSON MT 59860	MT-59 *	195	12	7-18	6	67	6-71	6	50	10-75	3	0	1-81	13	31	6-50	5	60	7-77	5	20	3-71	23	9	6-38
ST LUKE COMMUNITY HOSP RONAN MT 59864	MT-60 *	112	11	6-19	1	0	0-99	6	50	6-70	3	0	0-85	10	30	5-54	2	50	4-92	4	50	4-78	17	6	5-42
ST PATRICK HOSPITAL MISSOULA MT 59801	MT-61 *	1694	11	8-15	136	30	20-38	42	31	17-44	32	16	8-38	55	18	15-38	74	30	24-47	13	31	4-47	100	21	14-31
ST PETERS COMM HOSP HELENA MT 59601	MT-62 *	1184	9	7-14	83	28	15-36	33	33	15-45	29	21	5-33	36	14	10-37	32	38	25-58	11	9	3-49	122	17	12-28
ST VINCENT HOSP AND HEALTH BILLINGS MT 59107	MT-63	1875	9	8-14	188	24	18-35	61	25	19-43	46	17	10-36	61	15	14-36	43	33	24-53	19	16	6-44	137	17	12-28
STILLWATER COMMUNITY HOSP COLUMBUS MT 59019	MT-64 *	135	8	7-20	5	0	7-76	4	50	4-78	8	25	4-60	12	8	8-55	2	0	5-93	.	.		16	19	7-47
SWEET GRASS COMMUNITY HOSP BIG TIMBER MT 59011	MT-65 *	43	9	7-30	1	0	1-97	2	50	2-89	2	0	1-89	1	0	0-97	1	0	2-98	2	0	0-92	7	29	5-64
TETON MEDICAL CTR CHOTEAU MT 59422	MT-66 *	109	8	7-21	3	100	2-81	4	25	7-81	5	20	2-69	6	33	4-66	1	100	1-97	4	0	1-74	20	0	6-40
TOOLE COUNTY HOSP SHELBY MT 59474	MT-67 *	155	9	7-18	9	33	14-71	3	0	4-84	2	0	1-89	9	11	6-58	5	40	7-76	4	0	1-74	27	19	6-36
TRINITY HOSP WOLF POINT MT 59201	MT-68	111	14	6-19	1	100	1-97	.	.		2	0	0-94	5	20	2-68	3	33	4-85	2	0	0-92	10	40	8-61
WHEATLAND MEMORIAL HOSPITA HARLOWTON MT 59036	MT-69 *	55	11	6-25	1	0	0-98	6	17	6-70	3	0	0-84	2	100	1-89	4	50	7-82	.	.		9	0	3-53

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ST JOSEPH HOSPITAL POLSON MT 59860	1	100	0-97	.	.		.	.		.	.		27	11	1-23	7	14	0-66	1	0	0-100	11	0	0-49	15	0	0-55
ST LUKE COMMUNITY HOSP RONAN MT 59864	1	100	0-97	.	.		.	.		.	.		13	0	1-39	4	0	0-80	.	.		10	0	0-49	10	0	0-63
ST PATRICK HOSPITAL MISSOULA MT 59801	11	18	6-58	9	22	15-73	36	0	3-24	10	0	0-100	132	9	3-12	82	4	1-14	10	0	0-100	293	8	3-9	161	3	0-6
ST PETERS COMM HOSP HELENA MT 59601	9	11	5-62	6	33	12-79	43	9	3-23	10	0	0-96	123	2	2-11	58	2	2-17	11	0	0-100	96	3	2-11	95	0	0-8
ST VINCENT HOSP AND HEALTH BILLINGS MT 59107	3	0	2-83	10	10	10-65	59	7	3-20	5	0	0-100	191	4	2-9	62	6	1-15	10	0	0-66	126	5	2-10	278	1	0-4
STILLWATER COMMUNITY HOSP COLUMBUS MT 59019	.	.		.	.		3	33	0-91	1	0	0-100	19	0	1-30	4	25	0-77	1	0	0-100	7	0	0-59	6	0	0-98
SWEET GRASS COMMUNITY HOSP BIG TIMBER MT 59011	1	0	0-97	1	0	3-99	.	.		.			4	0	0-81	2	0	1-89	.	.		2	50	0-99	.	.	
TETON MEDICAL CTR CHOTEAU MT 59422	.	.		.	.		.	.		.	.		14	0	0-37	4	0	1-73	.	.		4	0	0-78	5	0	0-75
TOOLE COUNTY HOSP SHELBY MT 59474	.	.		.	.		4	0	0-83	.	.		14	7	0-40	8	13	1-54	1	0	0-100	11	9	0-48	7	0	0-72
TRINITY HOSP WOLF POINT MT 59201	.	.		1	0	0-97	4	25	0-75	.	.		6	17	0-85	2	0	0-95	.	.		8	0	1-53	7	0	0-92
WHEATLAND MEMORIAL HOSPITA HARLOWTON MT 59036	.	.		1	0	2-98	.	.		.	.		2	0	0-100	.	.		.	.		2	0	0-97	5	0	0-90

*Written Comments Not Submitted.

BARRETT MEMORIAL HOSPITAL
1260 South Atlantic
Dillon, Montana 59725
406-683-2324

October 5, 1987

William L. Roper, M.D.
Health Care Financing ADministration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore ,Maryland 21207

Re: Mortality Statistics

Dear Dr. Roper:

During your compilation of mortality statistics for Barrett Memorial Hospital for 1986, [redacted] is included in the statistics. As is correct in your review, he died in January [redacted] discharged on [redacted] The cause of death, however, was lung cancer and respiratory arrest at home rather than any relationship to his upper GI bleed. He is listed under diagnostic category GI and should be under cancer. I attended him at his death at home and certify that lung cancer was the underlying cause of death and the immediate cause of death was respiratory arrest.

Sincerely,

Raymond L. Thomas, M.D.

RLT/jmm

Big Horn County Memorial Hospital

September 29, 1987

William L. Roper, M. D.
Administrator, Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland

RE: Selected mortality information report.

If your mortality information report came from any other profession, I would be grossly concerned. But, concerning the ethics of the people who work for the federal government, I expected as little from you.

Your mortality information report oscillates between misconceptions, gross exaggerations, and lies.

There is a limit as to how long death can be artificially postponed.

Your report for this facility indicates that:

1. The mean average age at death was 78.
2. The median average age at death was 79.
3. The most frequently occurring age at death was 79.
4. Fifth per cent of the deaths were post-discharge.
5. The youngest post-discharge death was at age 72.

The validity of your data is best reflected in the following case: The patient was discharged from the hospital and 7 days later was shot and killed by her husband.

I hope that this futile exercise you have gone through has created at least one hundred additional bureaucratic jobs. The only contribution to society that this report is making is to an increased federal deficit.

Mike Sinclair

Michael N. Sinclair
Executive Director

MNS:mlj

Central Montana Hospital & Nursing Home

408 Wendell Avenue • P.O. Box 580
Lewistown, Montana 59457-0580
Phone (406) 538-7711

October 22, 1987

William L. Roper, MD, Administrator
Department of Health and Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, MD 21207

REF: Response to September 21, 1987 Requesting Comments on Proposed HCFA Regulations on Mortality Rate Reporting

Dear Mr. Roper:

My comments regarding the proposed mortality rate publishing will be brief, and I have attempted to summarize below the primary concerns and questions we have about the process. With relation to the data presented for Central Montana Hospital, we find no discrepancy. Our comments, however, are as follows:

1. The system should take into consideration the average age within the community, distance to other medical care facilities (especially for smaller hospitals), whether or not the facility is a combined facility (acute care and nursing home), and should consider where the death occurred--if the patient had been discharged (in a nursing home or at home).

2. The second concern is that the overall impact of the program will be more negative than positive, especially in terms of damaging the public image of the quality of the health care system and in terms of making the already crisis stage of malpractice insurance worse.

3. Thirdly, the approach seems to be an extremely bureaucratic process and, as in the case of using "data" with many types of studies, will be very difficult to meaningfully interpret.

4. Last, and most importantly, it is my impression after serving in an administrative capacity in four hospitals of varying size over the last 16 years, the proposed program, although well intended, will definitely not be cost effective and will not improve the quality of the system.

We appreciate very much your giving us an opportunity to share our concerns and observations about the proposed program.

Sincerely,

CENTRAL MONTANA HOSPITAL AND NURSING HOME

Robert G. Conrad, Administrator and
Chief Executive Officer

RGC/dbs

Deaconess
Medical
Center

October 27, 1987

Health Care Financing Administration
Department Health and Human Services
ATTN: Harvey Brook
Room 2-D-2, Meadows East Bldg.
6300 Security Blvd.
Baltimore, MD 21207

RE: Comments on HSQ-148-GNC
Submitted by Deaconess Medical Center
Provider #27004

Deaconess Medical Center submits the following comments to the Health Care Financing Administration (hereafter: HCFA) in response to the August 17, 1987 Federal Register General Notice for Comment: HSQ-148-GNC Selected Performance Information on Hospitals Providing Care to Medicare Beneficiaries.

Hospital Description

Deaconess Medical Center is a tertiary-care regional medical center with 253-beds, serving south central and northeastern Montana, the western Dakotas and northern Wyoming. As a community-owned, non-profit institution, we are committed to promoting the general health of our regional community, as well as fulfill our charitable responsibility to make services available to anyone in need, regardless of ability to pay.

We provide services in cardiac care, emergency and trauma care, psychiatric services, dialysis, cancer care services, pulmonary services, neurosciences and orthopedics. As a regional medical center serving smaller outlying hospitals, we have higher severity cases with higher than average risk. Our fixed-wing emergency air transport service transfers critically ill or injured in the region to Deaconess rather than to medical centers outside of Montana. Very few patients are transferred out of state for treatment.

Deaconess
Medical Center
of Billings, Inc.

Broadway at
Ninth Ave. North
Billings, MT 59103
P.O. Box 2547

Telephone 406-657-4000

Deaconess has been measuring its quality of care for many years, beginning with a quality assurance system adopted in the 70's. There are 236 physicians on staff, the majority of whom are board certified in their specialty and/or sub-specialty. Deaconess is accredited by the Joint Commission on Accreditation of Healthcare Organizations and is a member of Voluntary Hospitals of America, Inc.

Comments

As reported, the statistics for Deaconess appear to be very good. It should be noted, however, that these statistics cover only Medicare patients (those over 65 years of age).

We feel an appropriate assessment of hospital performance is dependent upon many variables and requires a look at a range of quality indicators of which mortality is but one. The difference between a hospital's actual and expected mortality rates cannot be definitely construed as reflecting especially high or low quality of care. This difference may result from factors that have not been included in the predictive model.

While we have found verifiable data to be quite accurate, no hospitals can reconcile their data. For example, our records indicate 2,851 Medicare admissions compared to the 2,441 reported. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals.

We feel it important to caution against drawing too many or incorrect conclusions from the data. In the August 17 Federal Register, William L. Roper, Administrator for HCFA, stated that "the usefulness of this approach depends upon the accuracy with which mortality rates can be predicted..." He added, "Not all of the factors affecting the probability of death in a particular case, most notably severity of illness, are included in the predictive model.... Thus, a difference between a hospital's actual and expected mortality rates cannot be definitely construed as reflecting especially high or low quality of care."

Mr. Roper also reported that "the smaller the number of admissions, the less reliable are the statistics, as the impact of random variation of outcomes in individual cases is greater." This applies particularly when reviewing any one diagnostic category by itself.

HCFA says that "the statistics are presented in the hope that they will serve the public and the hospitals in their common interest of improving quality care." We encourage the continual refinement of data collection and the reporting of methodologies so that this hope can become reality.

DISCLOSURE OF HEALTH CARE INFORMATION

PATIENT'S NAME: _____

NAME:

Fallon Medical Complex-Hospital and Nursing HOme

ADDRESS:

P.O. Box 820, 320 Hospital Drive

Baker, Montana 59313

INSTITUTIONAL AFFILIATION:

DATE OF DISCLOSURE:

10-9-87

DESCRIPTION OF INFORMATION DISCLOSED:

COMMENTS: Information presented on Mortality Rates appears correct. My only comment would be that although some percentages appear high on our report, it is necessary to keep in mind that in facilities ~~in rural setting away from specialty care, the patients admitted~~ with the diagnoses categories of the report, are generally in the terminal stages of their disease.

Marilyn Dunyon ART
Assistant Adm

FRANCES MAHON
DEACONESS HOSPITAL

621 3rd St. South
Glasgow, MT 59230
406-228-4351

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

TO WHOM IT MAY CONCERN:

We have typed our comments on the actual data sheet that is attached. We will publish any other comments after the actual data has been published by HCFA.

We have also attached a comment on the data sheet containing the actual patient names. Please note that comment, however, we do not wish it published.

Thank you for the opportunity to comment prior to releasing the data. We only wish the comments on the data sheet without patient names to be published.

Sincerely,

Kyle Hopstad by TM

Kyle Hopstad,
Administrator

KH:tjm

Enc: 3
cc: file

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

HOSPITAL = 270044 FRANCES MAHON DEACONESS HOSP GLASGOW MT

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	178	12 %	7 TO 18 %
CA - CANCER	6	50 %	10 TO 76 %
CE - CEREBROVASCULAR ACCIDENTS	7	57 %	7 TO 67 %
EY - OPHTHALMOLOGIC DISEASE	1	0 %	0 TO 100 %
GC - GASTROINTESTINAL CATASTROPHES	4	50 %	2 TO 74 %
GI - GASTROINTESTINAL DISEASE	21	5 %	0 TO 28 %
GU - UROLOGIC DISEASE	6	17 %	0 TO 67 %
HL - LOW-RISK HEART DISEASE	16	13 %	1 TO 33 %
HM - SEVERE CHRONIC HEART DISEASE	13	15 %	6 TO 50 %
HS - SEVERE ACUTE HEART DISEASE	6	67 %	11 TO 77 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	1	0 %	0 TO 98 %
OP - ORTHOPEDIC DISORDERS	12	8 %	0 TO 65 %
PN - PULMONARY DISEASE	20	0 %	6 TO 40 %
RN - RENAL DISEASE	1	0 %	1 TO 98 %
SE - SEPSIS	1	0 %	1 TO 97 %
TR - SEVERE TRAUMA	1	0 %	0 TO 100 %

Average age of patients expiring-83.3.
69% of deaths were in high risk categories.
Only 2 deaths were patients under age of 73 and those two deaths were in high risk categories.
Frances Mahon Deaconess Hospital is a sole community provider with no other acute care center within a 50 mile radius.
The causes listed above are determined by the patient diagnosis on their last hospital stay and not necessarily on the actual cause of death.
These mortality rates apply only to Medicare patients, not the total patient population.
The American Hospital Association, Joint Commission on Accreditation of Hospitals, and other organizations are investigating methods of evaluating hospital quality that rely on measures other than mortality rates, and Frances Mahon Deaconess Hospital looks forward to the results of those efforts.

HOSPITAL = 270070 GARFIELD COUNTY HEALTH CENTER INC JORDAN MT

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	1	0 %	0 TO 100 %

Dear Sirs:

As you may or may not know, our hospital closed its doors on May 31, 1986 and has not reopened.

During the period January 1, 1986 thru May 31, 1986 we admitted/discharged one Medicare patient, [redacted] is doing fine and still resides with her husband [redacted]

I hope the above is enough information and of the quality you were requesting. For future reference you may wish to record that we are now a 15-bed Nursing Home only.

Thank you.

Wagenar, Office Manager

MT 24

Holy Rosary Hospital

(406) 232-2540 1-800-843-3820
2101 Clark Street, Miles City, Montana 59301

Members of Presentation Health System

PACE Shared Services
Sioux Falls, South Dakota

Garfield Co. Health Center, Inc.
Jordan, Montana

Brady Memorial Home
Mitchell, South Dakota

McKennan Hospital
Sioux Falls, South Dakota

Mother Joseph Manor
Aberdeen, South Dakota

St. Joseph Hospital
Mitchell, South Dakota

St. Luke's Hospital
Aberdeen, South Dakota

Faulk County Memorial Hospital
Faulkton, South Dakota

Marshall County Memorial Hospital
Britton, South Dakota

St. Joseph Hospital
Polson, Montana

Dickey County Memorial Hospital
Ellendale, North Dakota

A. L. Vadheim Memorial Hospital
Tyler, Minnesota

COMMENTS ON THE HCFA MORTALITY DATA

Holy Rosary Hospital, Miles City, Montana

Data Verification

The data used by HCFA indicate that a total of 57 Medicare patients admitted to Holy Rosary Hospital died within 30 days of admission. Of these, 42 died while still a patient of the hospital, while 15 died after discharge. Our own records indicate that 858 Medicare admissions occurred in 1986. Our own records verify the mortality data submitted by HCFA concerning the listing of patients. However, HCFA reports 752 admissions at Holy Rosary Hospital (270002).

Results of preliminary Medical Record Review

Significant comorbid conditions were reviewed in the records of patients who died in the hospital. Of the seven Cancer (CA) death records reviewed, seven were found to have documented comorbid conditions.

One GI death was listed in the HCFA mortality data. This case was reviewed and was noted to be a patient with a preterminal myeloma who died within 30 days after discharge. The GI condition was treated and the patient was transferred to the nursing home for terminal care.

Significant comorbid conditions were found to be present in three of the Severe Chronic Heart Disease (HM) death records and three of the Severe Acute Heart Disease (HS) records.

Significant comorbid conditions were found to be present in 5 of the 7 pulmonary disease (PN) records.

One Renal Disease (RD) case was listed in the HCFA data. This case also was noted to have documented comorbid conditions.

Four Sepsis (SE) records were reviewed. One patient improved rapidly after treatment but died within 30 days from terminal multiple myeloma.

Mortality Data were reviewed by Quality Assurance Committee 10/19/87. The Committee focused their review on the severe acute heart disease records. This was an area in which we fell out of the predicted range for mortality. The Committee did not wish to contest the data for Holy Rosary but are concurring with the Medical Record review findings listed above.

Joann Richardson, RN
Medical Records Director

NORTHERN MONTANA Hospital
P.O. Box 1231 30 Thirteenth St. Havre, MT 59501 (406) 265-2211

OCTOBER 26, 1987

William L. Roper, M.D.
Administrator
Healthcare Financing Administration
Department of Health & Human Services
Washington D.C. 20201

Dear Dr. Roper,

Northern Montana Hospital has just finished reviewing the mortality information related to medicare patients treated in our hospital, in 1986, and we have some brief comments that we would like to provide regarding this information.

First of all, we are very appreciative of the fact that we had a chance to review this information before the general public. This has allowed us to point out some possible discrepancies and also understand the data prior to it's release.

The information that was forwarded to us, as hospital ID number 270032, contained 68 individual patients. Of those 68 patients, we could only account for 67. There was one (1) patient listed that we cannot locate in any of our records. The patient ID number for this patient, is [redacted] with a date of death of 5/22/86. Our review of the data also showed that there were thirteen (13) patients on the list, that died either at home or in other institutions. The public needs to be informed that these categories exist in the overall listing attributed to Northern Montana Hospital.

The third area we would like to comment on, is the area of diagnostic categories and the predicted ranges of mortality rates. In reviewing the information for Northern Montana Hospital, we found that there was only one area in which we exceeded the predicted range of mortality rates. This was the area of renal disease.

In reviewing the total number of charts that fell within this diagnostic category, we found that the actual cause of death in these cases was not due to the primary diagnosis that the patients were admitted under, but was due to additional problems that were listed in the admitting diagnosis. An example of this would be congestive heart failure that was secondary to severe renal failure, but actually became the cause of death. Though the admitting diagnosis put them in the renal disease category, they very well could have been put into another category, such as severe, chronic heart disease. The way that these patients were categorized does lead to a false impression for the mortality rates of those type patients at Northern Montana Hosptial.

Again, we would feel that some type of explanation regarding the different diagnostic categories and the types of patients found within those categories is in order, as this same problem most likely could exist in other categories as you have them listed.

As HCFA intends to direct the Peer Review Organizations to analyze this data in concert with their ongoing review activities, we would strongly suggest that all hospitals have a chance to comment on the data prior to the review, to eliminate some of the misunderstandings and discrepancies as we have just pointed out. The release of mortality information on specific hospitals to the public, can be a useful tool, if the data and the information is accurate and well explained. If this information is not accurate and the public does not understand all the things that are included in it, the public can be mislead and the institutions in which the public may unnecessarily lose confidence in, are damaged. We would urge that the Healthcare Financing Administration work closely with the American Hospital Association in assuring that the data provided is in fact, accurate and useful.

We would like to thank you again for the opportunity of reviewing the mortality information, and having a chance to comment upon this information, hopefully helping you provide a more accurate picture to the public that we are both trying to serve.

Thank you.

Sincerely,

Gerald W. Bibo

Gerald W. Bibo
President/CEO

COMMUNITY HOSPITAL
BOX 38
POPLAR, MONTANA 59255

October 25, 1987

Health Care Financing Administration
Department of Health and Human Services
P.O. Box 26684
Baltimore, Maryland 21207

Dear Mr. Roper:

I am writing this letter in response to the Health Care Financing Administration's report on mortality occurrences regarding Medicare patients.

In the spirit of keeping this brief and to the point, I would comment that all of the names on the list for Community Hospital with the exception of one were residents of our Nursing Home. Two of those Nursing Home residents had a terminal diagnosis.

In reviewing the patient charts, two deaths occurred in the hospital sector (but were Nursing Home residents), one in the Nursing Home after being discharged from the hospital, and one in transport to another facility. I would add that the transfer patient also had a terminal diagnosis of end stage renal disease.

In summary, I do not feel any of these statistics are out of line and they fall into the predicted mortality rate range. As earlier stated, three of the four had a terminal diagnosis and three of the four were Nursing Home residents. All deaths were over the age of 72 years.

I hope this information is sufficient for your reports.

Sincerely,

Margaret B. Sage

Margaret B. Sage, Administrator
Community Hospital and Nursing Home
Poplar, Montana 59255
Medicare Provider #: 270060

Providing Total Care for the Community

rchc

Rosebud Health Care Center

DATE: October 13, 1987

TO: HCFA
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

FROM: Joyce Asay, Administrator
Rosebud Health Care Center
P.O. Box 268
Forsyth, MT 59327

SUBJECT: Hospital Mortality Information

In response to the 1986 mortality statistics sent out in September:

Small rural hospitals mortality data by percentage is very misleading. Average age of our mortality date is 83.4, which also is a significant factor.

Quality of care, I agree, is not applicable in our situation. Due to the illness and/or age, death has been taken out of our hands. Most local citizens who are dying from a terminal illness and realize this fact, want to be in their local facilities to die.

I am having a problem with what the advantages would be of publicizing such information. Small rural hospitals try very hard to meet all economic situations without negative information going out to the public. We have at least 3-4 entities inspecting the quality of care we give, so there's very little chance that we would not give quality care, even though quality care is our top priority.

cc: Anthony L. Wellever, Senior Vice President
Montana Hospital Association
P.O. Box 5119
Helena, MT 59604

383 N. 17th Avenue, Forsyth, Montana 59327
356-2161 or 1-800-826-0674
MT 53

THE RUBY VALLEY HOSPITAL

P. O. Box 336 Phone (406) 842-5778

Business Office Phone - 842-5162

SHERIDAN, MONTANA 59749

October 9, 1987

Medicare # - 27-0059

Dear Sir:

Although the results of the mortality study you intend to publish for our hospital fell will within the limits of predicted mortality rates, I felt a need to comment anyway. Please accept these comments as constructive criticism and not as demeaning comments to HCFA.

I question the advisability of releasing information such as this, particularly to consumers, because of the damage it could do to the reputations of some very good hospitals. I realize that you intend to stress that those reading this information Should not use it as a too of evaluation in judging a hospital's quality because, through your own admission, the results are not a complete measure of the quality of care at individual hospitals and many aspects of the patient's conditions have not been considered. But even if you make this fact clear, I maintain many consumers will use this information to make such erroneous comparisons. Health care consumers are better educated as to what they should expect, but are the majority able to use this information for its intended purpose. I Believe many will only read or understand parts of this information and a negative result will occur.

Specifically concerning our hospital, the results, although accurate, are not indicative of the quality of care we provide.

Comparing small numbers to small numbers especially when drawing up percentages, results in big numbers. It is true that we had a 33% mortality rate for impatients admitted for cerebrovascular accidents, but it is also true that only one Medicare patient died due to this illness in the study period. The results for our hospital remain well within the predicted limits, but what if the consumer reading this information only reads the percentage of deaths? The percentage is significant enough to create concern unless all the information is considered.

We are a very small rural hospital and as such do not offer some services because of volume constraints. Thus, it is important to note that, usually, any heart disease patents are referred to an institution that has a cardiologist on staff. If they are admitted to our facility they have either refused such referral or are considered non-operative and in the last stages of the disease. Because of this, a heart disease patient admitted to our facility has a higher risk of death. Again, we may have

had a 50% mortality rate, but only two people died in our facility in 1986 as a result of this disease and the two who died only reported to our facility after two days of chest pain, one being unconscious when admitted.

As you noted in your cover letter, severity of illness is a factor that this data did not address, but it does play an important role in the outcome of each case. Another aspect that also plays and important role is the patient's frame of mind or willingness to live. Many people live well past their anticipated life expectancy because of their will to live. For others the exact opposite is true. Statistically, this factor cannot be measured but it does play an important part in many outcomes.

The quality of care patients receive in our institution is very good. I am in hopes that your intentions and your expectations in releasing this information are realized. I still question the need to release this information to the general public. It is likely to cause more harm than good.

Sincerely,

Randall G. Holom

Randall G. Holom
Chief Executive Officer

St. James Community Hospital, Inc.

Hospital ID number 270017

DATA VERIFICATION

The data used by HCFA indicated that a total of 1,557 Medicare patients were admitted to St. James Community Hospital. Within this number 135 Medicare patients died while still a patient of the hospital. In addition, 36 died within a thiry day period following discharge.

Our own records indicate 2,726 Medicare admissions occurred in 1986. The discrepancy reflects multiple admissions of individual beneficiaries. Our own records indicate that 138 Medicare patients died within 30 days of admission while still an in-patient and 33 died after discharge from the hospital within 30 days.

INTERPRETIVE REMARKS

Within all diagnostic categories, our mortality experience at St. James Community Hospital fell within the predicted mortality rate.

P.O. Box 3300 400 South Clark Street Butte, Montana 59702 (406) 782-8361

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

ATTACHMENT 5

Hospital ID number = 270017

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	18	3	18	3
CE -- Cerebrovascular Accidents	11	6	11	6
GC -- Gastrointestinal Catastrophes	5	1	4	2
GI -- Gastrointestinal Disease	12	2	12	2
GU -- Urologic Disease	3	1	3	1
GY -- Gynecologic Disease	-	-	-	-
HL -- Low Risk Heart Disease	7	3	8	2
HM -- Severe Chronic Heart Disease	10	3	10	3
HS -- Severe Acute Heart Disease	14	3	17	-
ME -- Metabolic/Electrolyte Disturbances	2	-	2	-
OP -- Orthopedic Disorders	2	3	2	3
PN -- Pulmonary Disease	16	-	16	-
RN -- Renal Disease	-	-	-	-
SE -- Sepsis	6	-	6	-
TR -- Severe Trauma	7	1	7	1
OP -- Ophthalmalogic Disease	-	-	-	-
UN -- Other Diagnoses	22	10	22	10
Total -- All Categories	135	36	138	33

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

St. James Community Hospital, Inc.

Hospital ID number 270017

SUMMARY ANALYSIS

A: Treated In Hospital - Date of Death incorrect

PT #	Surname	Diagnostic Category	Date of Admission	Date of Discharge	Date of Death
[redacted]	[redacted]	HL	10-25-86	10-25-86	10-25-86
[redacted]	[redacted]	HS	9-24-86	10-13-86	10-13-86
[redacted]	[redacted]	HS	7-27-86	7-28-86	7-28-86
[redacted]	[redacted]	HS	2-9-86	2-26-86	2-26-86

B: Still alive when discharged

[redacted]	[redacted]	GC	4-29-86	5-19-86	5-19-86

C: Diagnostic category correction

[redacted]	[redacted]	SE	2-23-86	3-11-86	3-11-86

P.O. Box 3300 400 South Clark Street Butte, Montana 59702 (406) 782-8361

Saint Vincent Hospital and Health Center

DATE: October 26, 1987

TO: William Roper, M.D., Administrator

FROM: William M. Murray, President, Saint Vincent Hospital and Health Center

RE: Medicare Death Statistics

Enclosed are corrections of the individual death statistics such as date of death and diagnosis code. Also noted was one patient who had no record of hospitalization at this hospital (see attached).

In this packet are the comments to be released with our death statistics.

We would appreciate the corrections to our data to be made prior to release of the data.

Thank you.

WM/RT/jlp

Post Office Box 35200
Billings, Montana 59107-5200
406-657-7000

We touch your life.

Saint Vincent Hospital and Health Center

Saint Vincent Hospital and Health Center would like to include the following four points of technical comment to the HCFA Mortality Data.

1. This data is mortality related to Medicare patients only at Saint Vincent Hospital and Health Center for the year 1986, and differs from other indicators of inpatient mortality. The HCFA data is calculated using only deaths which occurred within 30 days of the last admission of a Medicare Beneficiary for the year 1986. There are other organizations such as Joint Commission and the American Hospital Association which are investigating other methods to evaluate hospital quality which do not rely only on mortality rates. Saint Vincent Hospital and Health Center looks forward to the results of those efforts.

2. The HCFA Data makes the assumption all hospitals have the same "average" patients with exception of age, sex, and principal diagnosis. Other complicating illnesses, the number of preceding admissions during the year, and whether or not the patient was referred or transferred from another facility is not addressed. Therefore, severity of illness of each patient is not truly acknowledged. Specifically, a patient may be admitted with a low risk principal diagnosis such as a fractured hip, but have multiple high risk secondary diagnoses such as acute MI, congestive heart failure, and be 85 years old. In summary, what is displayed in this data is not a total picture of the severity of illness. To further explain this point, the average age of patients who died at Saint Vincent Hospital and Health Center in the low risk category was 80 years of age. The majority of these cases had secondary diagnoses of high risk or chronic disease.

3. Saint Vincent Hospital and Health Center believes in quality patient care for all patients. 30 - 40% of Saint Vincent Hospital and Health Center total patient volume is Medicare beneficiaries. An item not displayed in the HCFA Data was the total Medicare discharges for the 1986 year. This volume at Saint Vincent Hospital and Health Center was in excess of 3000 discharges.

4. As a Regional Referral Center for Montana and northern Wyoming, Saint Vincent Hospital and Health Center treats patients who may be more acutely ill than the "average patient" addressed by HCFA. This is especially true in the areas of oncology, cardiology, orthopedics, trauma, and the multiple specialties of surgery.

In summary, we at Saint Vincent Hospital and Health Center are confident of our provision of quality health care in the past and we will take any and all action to ensure the same high quality in the future.

Post Office Box 35200
Billings, Montana 59107-5200
406-657-7000

We touch your life.

October 19, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
Washington, D. C. 20201

Dear Dr. Roper:

COMMENTS ON THE HCFA MORTALITY DATA
Trinity Hospital - Provider #270024

The data used by HCFA indicate that a total of 15 Medicare patients admitted to Trinity Hospital died within 30 days of admission. Of these, 12 died while still a patient of the hospital, while 3 died after discharge.

The actual number of Medicare patients admitted to this hospital in 1986 was 236. HCFA shows 111 Medicare patients as they have counted only the last admission for patients admitted more than once.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of your figures. You state that sophisticated statistical techniques and adjustments for patient mix have been used in computing the rate. Since we do not have that information available to us, we are unable to verify the results of the predicted mortality rate.

Our findings on review of charts indicated that on at least 1/3 (5 out of 15) of the patients, the cause of death was due to a different diagnostic category than what HCFA has indicated on their mortality study. The principal diagnosis is retrieved from billing data rather than actual cause of death which creates discrepancies in diagnosis. By not using the actual cause of death, the actual mortality rate and range of predicted mortality rates shown by HCFA are misleading. This was the case in the cancer category which showed 100% actual mortality rate. The patient was admitted for carcinoma of the rectum and the cause of death was cardiac arrest, most likely due to myocardial infarction.

In 33% of the cases, the patients were admitted with chronic conditions, in a debilitated state in order to die with respect to patient and family wishes. In these patients the death was the expected outcome.

TRINITY HOSPITAL ASSOCIATION 315 knapp st wolf point,mt 59201 406 653 2100

In 53% of the patients, death was a significant possibility on admission to the hospital. Patients were under therapy for a chronic condition presenting with severe acute symptoms for treatment.

14% of the patients had an unusually large number of complicating factors.

Sincerely,

Jay Pottenger
Administrator
Trinity Hospital
Wolf Point, MT 59201

Nebraska

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ANTELOPE MEMORIAL HOSP NELIGH NE 68756	NE-9	208	16	11-22	13	15	9-55	10	10	12-66	3	33	1-81	9	33	6-59	9	67	18-75	6	17	1-63	30	13	12-43
BEATRICE COMM HOSP AND HLT BEATRICE NE 68310	NE-10	625	14	10-18	45	20	14-41	30	37	18-52	19	21	6-42	26	23	10-42	33	48	23-56	13	15	4-47	54	15	11-33
BEATRICE STATE DEVELOPMENT BEATRICE NE 68310	NE-11 *	85	0	0-14	.	.		.	.		.	.		.	.		.	.		1	0	0-99	5	0	1-67
BERGAN ARCHBISHOP MERCY HO OMAHA NE 68124	NE-12 *	2626	11	9-15	243	20	17-33	97	26	19-38	45	22	8-32	125	26	16-32	131	32	30-48	49	12	8-33	186	21	14-28
BOONE CO COMM HOSP ALBION NE 68620	NE-13 *	176	16	9-21	4	25	1-74	9	33	8-62	5	40	5-73	8	13	7-63	4	25	7-81	8	25	3-58	41	24	12-38
BOX BUTTE GEN HOSP ALLIANCE NE 69301	NE-14 *	286	14	6-15	4	25	3-76	9	44	8-62	7	29	2-60	12	17	7-53	15	33	17-63	8	25	2-56	29	17	8-38
BRODSTONE MEMORIAL-NUCKOLL SUPERIOR NE 68978	NE-15 *	316	12	10-20	9	22	6-60	19	42	13-53	7	14	4-63	15	13	9-51	12	25	18-69	5	0	2-69	48	23	13-38
BROWN CO HOSP AINSWORTH NE 69210	NE-16	128	16	7-20	5	60	13-84	2	100	5-93	2	50	0-90	2	100	4-92	4	50	10-86	.	.		17	18	6-45
BRYAN MEM HOSP LINCOLN NE 68506	NE-17 *	3426	9	8-14	229	22	18-34	112	29	20-38	79	19	8-28	111	16	16-33	161	37	28-45	49	14	7-32	195	24	14-27
BUTLER CO HOSP DAVID CITY NE 68632	NE-18	267	12	8-18	7	29	4-63	9	44	9-64	8	13	2-55	11	18	9-58	6	50	14-81	4	75	6-81	38	16	10-37
CALLAWAY DISTRICT HOSP CALLAWAY NE 68825	NE-19 *	123	15	10-25	6	50	4-67	5	20	9-79	7	43	5-64	8	25	5-61	9	11	11-68	3	0	0-84	29	17	7-36
CAMBRIDGE MEM HOSP CAMBRIDGE NE 69022	NE-20	139	20	10-23	12	50	11-60	5	60	8-77	4	0	1-74	4	0	4-77	6	50	11-77	2	0	0-91	26	23	11-44
CHADRON COMM HOSP CHADRON NE 69337	NE-21	322	11	8-18	15	27	13-59	3	33	4-84	10	40	10-64	18	50	9-48	5	20	13-84	8	0	2-56	45	9	11-36
CHASE CO COMM HOSP IMPERIAL NE 69033	NE-22	195	15	10-21	12	50	21-73	6	33	12-78	4	25	1-74	10	20	5-55	8	38	18-79	7	57	2-60	32	6	8-36
CHERRY CO HOSP VALENTINE NE 69201	NE-23 *	110	17	10-25	3	67	1-81	5	80	11-81	3	0	0-83	3	0	1-81	9	22	16-73	3	0	1-82	18	44	10-50
CLARKSON BISHOP MEM HOSP OMAHA NE 68105	NE-24	3671	10	8-14	269	25	18-34	80	24	20-40	49	24	10-35	126	25	17-33	96	40	28-49	58	21	10-34	267	14	14-26
COLUMBUS COMM HOSP COLUMBUS NE 68601	NE-25	617	14	9-17	38	37	14-43	23	52	15-52	16	13	5-44	31	26	13-44	36	47	24-56	10	0	2-50	56	23	13-36
COMMUNITY HOSP MCCOOK NE 69001	NE-26	474	13	8-16	33	39	20-53	12	67	9-56	10	10	4-54	17	18	8-48	12	75	17-68	8	38	4-59	46	22	10-35
COMMUNITY HOSP INC FALLS CITY NE 68355	NE-27	301	23	10-20	12	17	7-54	9	67	11-66	5	60	2-69	23	52	11-47	14	79	17-64	5	0	1-68	52	29	14-39
COMMUNITY MEM HOSP HUMBOLDT NE 68376	NE-28 *	83	20	9-26	4	50	7-81	3	67	5-85	5	20	1-68	8	50	8-66	4	75	9-84	3	33	1-81	10	20	8-59
COMMUNITY MEM HOSP SYRACUSE NE 68446	NE-29 *	113	17	9-24	6	83	15-81	4	50	7-82	1	0	0-98	9	22	6-60	4	50	7-82	3	33	2-82	15	7	8-50
COMMUNITY MEM HOSP INC BURWELL NE 68823	NE-30	86	23	11-28	2	100	5-93	8	63	8-66	6	17	2-63	8	25	6-62	7	57	15-78	3	0	0-83	6	17	6-70
COMMUNITY MEMORIAL HOSP CRAWFORD NE 69339	NE-31 *	93	10	8-23	3	67	5-86	1	100	1-97	8	13	4-58	3	0	2-81	2	50	10-98	8	13	6-63	13	0	4-47
COZAD COMMUNITY HOSPITAL COZAD NE 69130	NE-32	126	24	7-20	5	60	6-75	5	100	7-77	3	0	0-82	9	44	6-58	5	100	13-84	2	0	0-93	13	38	8-53
CRETE MUNICIPAL HOSPITAL CRETE NE 68333	NE-33 *	209	16	9-20	3	33	4-84	5	60	8-77	4	25	1-74	12	33	11-59	8	50	13-72	4	25	1-74	17	18	8-48
DOUGLAS CO HOSP OMAHA NE 68105	NE-34	118	25	8-23	1	100	1-97	1	0	0-97	1	0	0-98	.	.		.	.		1	100	0-98	63	40	13-35

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ANTELOPE MEMORIAL HOSP NELIGH NE 68756	.	.		4	50	6-81	8	25	2-54		.		30	10	3-26	9	11	0-53	1	0	0-100	18	17	1-32	13	0	0-43
BEATRICE COMM HOSP AND HLT BEATRICE NE 68310	1	100	0-97	10	60	15-70	30	10	2-26	.	.		101	2	2-12	25	8	1-26	10	0	0-100	37	16	1-19	16	0	0-39
BEATRICE STATE DEVELOPMENT BEATRICE NE 68310		.		.	.		.			1	0	0-100	3	[illegible]	0-97	1	0	0-100	.	.					.	.	
BERGAN ARCHBISHOP MERCY HO OMAHA NE 68124	25	20	13-53	13	38	14-64	88	11	4-18	50	0	0-35	313	[illegible]	3-9	116	1	1-12	40	0	0-60	139	6	2-10	272	0	0-4
BOONE CO COMM HOSP ALBION NE 68620	1	0	0-99	3	0	6-87	2	50	0-95				21	5	1-28	4	0	0-76	1	0	0-100	13	15	1-39	7	14	0-83
BOX BUTTE GEN HOSP ALLIANCE NE 69301	2	50	2-90	.	.		18	22	1-33	.			29	7	0-22	11	9	0-45	.	.		11	18	0-44	37	3	0-20
BRODSTONE MEMORIAL-NUCKOLL SUPERIOR NE 68978	9	0	8-65	4	25	5-79	3	0	0-89	.	.		46	9	2-18	6	0	0-64	1	0	0-100	21	5	2-29	14	7	0-51
BROWN CO HOSP AINSWORTH NE 69210	3	100	4-85	.	.		.	.		.	.		25	8	0-25	1	0	0-98	3	0	0-100	8	0	0-57	4	0	0-95
BRYAN MEM HOSP LINCOLN NE 68506	21	24	6-47	14	21	17-65	83	6	3-17	87	0	0-13	337	4	3-9	111	2	1-12	39	0	0-42	421	5	3-8	367	0	0-4
BUTLER CO HOSP DAVID CITY NE 68632	4	25	8-84	1	100	1-97	3	0	0-92	1	0	0-100	45	7	1-18	14	0	0-45	2	0	0-100	16	0	0-34	15	0	0-42
CALLAWAY DISTRICT HOSP CALLAWAY NE 68825	4	0	3-78	1	100	1-97	1	0	0-100	.	.		11	9	1-44	5	0	1-67	.	.		7	0	0-63	1	0	0-100
CAMBRIDGE MEM HOSP CAMBRIDGE NE 69022	1	0	0-97	2	0	2-90	1	0	0-100	.	.		17	18	2-36	6	0	0-68	1	0	0-100	7	29	0-59	8	0	0-83
CHADRON COMM HOSP CHADRON NE 69337	4	50	8-84		.		4	0	0-75	.	.		40	[illegible]	2-20	21	10	1-29	5	0	0-100	25	4	1-24	24	0	0-28
CHASE CO COMM HOSP IMPERIAL NE 69033	[illegible]	25	1-76	1	100	1-97	3	33	0-85	.			19	5	1-30	[illegible]	0	0-71	2	0	0-100	13	0	0-39	12	0	0-50
CHERRY CO HOSP VALENTINE NE 69201	3	33	1-82	.	.		2	0	0-90	.	.		12	8	1-42	1	0	0-100	.	.		9	11	0-52	5	0	0-90
CLARKSON BISHOP MEM HOSP OMAHA NE 68105	82	13	10-39	36	19	27-61	69	9	5-21	368	0	0-2	274	5	3-10	90	6	1-13	35	0	0-84	484	7	3-7	257	2	0-5
COLUMBUS COMM HOSP COLUMBUS NE 68601	3	0	0-83	3	67	9-91	24	4	1-27	5	0	0-100	84	[illegible]	1-12	41	0	0-19	12	0	0-100	44	2	1-17	52	2	0-15
COMMUNITY HOSP MCCOOK NE 69001	2	50	0-91	3	67	3-84	10	20	1-47	.	.		56	0	1-15	24	[illegible]	1-27	2	0	0-100	27	4	1-23	68	1	0-11
COMMUNITY HOSP INC FALLS CITY NE 68355	3	100	5-87	.	.		3	0	0-86	.	.		30	10	1-21	6	0	0-69	2	0	0-98	27	4	1-23	16	0	0-47
COMMUNITY MEM HOSP HUMBOLDT NE 68376	.	.		.	.		4	25	0-78	.	.		8	0	0-57	7	0	0-66	1	0	0-100	7	0	0-59	1	0	0-100
COMMUNITY MEM HOSP SYRACUSE NE 68446	4	25	3-77	1	0	1-97	.	.			.		9	0	0-50	1	0	0-100	2	0	0-100	10	10	0-49	7	0	0-91
COMMUNITY MEM HOSP INC BURWELL NE 68823	1	0	0-97	1	100	3-99	.	.		.	.		9	33	1-50	.	.		.	.		[illegible]	0	1-53	4	0	0-96
COMMUNITY MEMORIAL HOSP CRAWFORD NE 69339	2	0	1-90	.			.	.			.		4	0	0-74	3	0	0-87	1	0	0-100	12	0	0-43	1	0	0-100
COZAD COMMUNITY HOSPITAL COZAD NE 69130	3	67	1-83	1	100	0-97	5	0	0-77	.	.		19	5	0-30	4	0	0-85	.			12	0	0-44	11	18	0-60
CRETE MUNICIPAL HOSPITAL CRETE NE 68333	1	100	0-97	5	20	7-76	3	67	0-86	.			20	5	1-30	[illegible]	0	0-68	1	0	0-100	14	7	0-38	3	0	0-100
DOUGLAS CO HOSP OMAHA NE 68105	.			.	.					.	.		3	0	0-97	3	33	0-87		.		1	100	0-98		.	

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
DUNDY CO HOSP BENKELMAN NE 69021	NE-35	149	13	10-23	4	0	3-77	4	75	7-82	5	0	1-69	11	36	7-56	9	44	14-71	.	.		41	12	11-37
FILLMORE CO HOSP GENEVA NE 68361	NE-36 *	288	15	10-20	9	44	17-75	9	33	9-64	9	33	2-53	17	24	10-51	9	44	19-76	16	38	9-52	25	36	11-45
FRANKLIN CO MEM HOSP FRANKLIN NE 68939	NE-37	123	14	9-23	6	0	6-70	3	33	4-84	2	50	1-89	9	22	7-60	7	57	14-77	7	14	2-60	18	17	12-52
FRITZER MEM HOSP OXFORD NE 68967	NE-38 *	107	14	9-25	2	50	4-92	4	50	6-80	.	.		7	43	6-65	1	0	2-98	3	0	2-82	23	13	13-49
FULLERTON MEMORIAL HOSP FULLERTON NE 68638	NE-39 *	71	20	9-28	1	0	1-98	4	50	5-79	2	0	3-91	1	0	0-97	5	20	10-80	.	.		9	22	7-61
GARDEN COUNTY HOSP OSHKOSH NE 69154	NE-40 *	119	21	10-24	8	50	7-64	4	50	4-77	3	0	0-84	5	60	5-73	6	83	13-79	6	17	3-66	27	11	11-43
GENOA COMM HOSP GENOA NE 68640	NE-41	117	15	9-23	1	100	1-97	4	75	6-80	1	0	0-98	16	25	10-52	5	40	11-81	5	20	1-68	23	17	7-40
GOOD SAMARITAN HOSP KEARNEY NE 68847	NE-42	1704	10	7-14	145	18	16-34	59	32	17-40	23	22	5-38	47	23	12-37	47	55	26-54	22	23	5-39	78	28	12-32
GORDON MEM HOSP GORDON NE 69343	NE-43 *	243	9	8-18	11	45	9-59	2	0	1-89	4	25	1-74	11	9	7-56	12	50	17-68	2	0	0-91	21	14	7-42
GOTHENBURG MEM HOSP GOTHENBURG NE 69138	NE-44	143	17	9-23	6	17	9-74	1	100	1-97	3	0	1-81	8	75	6-63	5	40	14-84	7	29	11-74	11	36	10-61
GRAND ISLAND MEM HOSP GRAND ISLAND NE 68801	NE-45 *	850	11	9-16	64	19	16-41	29	55	16-50	14	14	6-48	31	23	14-45	37	51	25-56	20	15	8-45	59	14	13-36
GREAT PLAINS MED CTR NORTH PLATTE NE 69101	NE-46 *	1016	11	8-15	76	28	15-37	42	43	17-44	24	17	8-41	55	20	15-38	41	46	23-53	9	22	4-57	82	16	11-30
HARLAN CO COMM HOSP ALMA NE 68920	NE-47 *	144	13	9-22	4	50	4-78	8	50	12-71	2	50	0-90	12	8	10-58	4	50	7-82	2	0	0-90	21	10	10-46
HENDERSON COMM HOSP HENDERSON NE 68371	NE-48	47	13	8-30	5	0	3-70	3	33	5-86	1	100	0-98	5	20	4-71	3	67	7-88	1	0	0-99	4	25	2-75
HOWARD CO COMM HOSP SAINT PAUL NE 68873	NE-49	165	24	10-23	6	33	7-72	16	56	18-62	2	0	1-89	5	40	3-70	2	50	6-94	6	17	3-66	20	20	10-47
IMMANUEL ALCOHOLISM TREATM OMAHA NE 68122	NE-50 *	10	0	0-48	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
IMMANUEL MED CTR OMAHA NE 68111	NE-51	1984	11	8-15	154	29	19-37	56	25	17-41	29	17	6-35	81	22	15-34	60	40	27-52	60	15	10-34	157	13	12-27
JEFFERSON CO MEM HOSP INC FAIRBURY NE 68352	NE-52 *	292	16	11-21	21	52	17-57	19	32	14-55	11	0	1-47	11	45	7-56	8	13	15-74	5	40	4-72	60	17	11-33
JEFFREY ANNIE MEM CO HOSP OSCEOLA NE 68651	NE-53 *	189	14	11-23	2	50	2-90	5	20	4-72	4	0	1-74	18	50	13-54	13	54	19-68	4	0	3-76	31	16	13-44
JOHNSON CO HOSP TECUMSEH NE 68450	NE-54 *	204	16	8-19	6	50	5-68	10	50	10-63	2	50	2-90	15	40	7-48	3	33	6-87	5	20	3-70	18	17	11-50
KEARNEY CO COMM HOSP MINDEN NE 68959	NE-55	124	14	9-22	6	50	4-68	9	33	10-65	4	0	1-74	7	43	8-68	4	50	8-83	3	0	4-84	13	31	8-53
KIMBALL CO HOSP KIMBALL NE 69145	NE-56 *	153	10	7-19	5	40	8-77	3	33	3-82	4	0	4-77	10	10	6-56	7	43	12-75	2	0	0-97	15	0	5-44
LANNING MARY MEM HOSP HASTINGS NE 68901	NE-57 *	1435	13	10-17	137	29	17-35	58	19	19-44	44	32	8-33	72	22	14-34	66	47	30-55	36	14	8-36	84	17	14-34
LINCOLN GEN HOSP LINCOLN NE 68502	NE-58 *	1575	12	8-15	191	20	17-34	57	16	18-42	24	25	5-37	46	20	14-39	40	40	24-55	34	6	6-35	92	26	12-30
LITZENBERG MEM CO HOSP CENTRAL CITY NE 68826	NE-59 *	192	16	10-21	9	56	8-62	6	67	8-73	2	50	0-90	7	29	4-62	10	30	20-75	5	20	1-68	24	25	10-44
LUNDBERG MEM HOSP CREIGHTON NE 68729	NE-60	174	21	12-25	16	25	7-48	7	57	11-73	4	25	3-76	5	60	4-72	13	54	21-70	2	50	1-89	35	26	16-46

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
DUNDY CO HOSP BENKELMAN NE 69021	3	67	5-86	1	0	0-97	.	.		.	.		18	6	0-31	6	0	0-67	.	.		11	9	0-46	10	0	0-67
FILLMORE CO HOSP GENEVA NE 68361	3	0	2-83	2	50	4-93	7	0	0-59	1	0	0-100	38	3	2-21	10	0	0-68	3	0	0-100	13	0	0-41	16	6	0-34
FRANKLIN CO MEM HOSP FRANKLIN NE 68939	1	100	0-97	2	0	2-90	4	0	0-80	.	.		14	0	0-39	4	25	0-88	1	0	0-100	9	0	0-52	4	0	0-97
FRITZER MEM HOSP OXFORD NE 68967	1	0	0-97	.	.					.	.		15	7	1-35	5	20	0-70	.	.		12	8	1-41	2	0	0-100
FULLERTON MEMORIAL HOSP FULLERTON NE 68638	2	100	7-96	2	0	5-93	.	.		.	.		11	18	0-44	5	0	0-74	1	0	0-100	5	0	0-70	4	0	0-99
GARDEN COUNTY HOSP OSHKOSH NE 69154	2	100	2-91	.	.		6	33	1-62	1	0	0-100	10	0	0-51	4	0	0-80	.	.		5	0	0-83	3	0	0-100
GENOA COMM HOSP GENOA NE 68640	2	50	1-90	2	0	2-90	.	.		.	.		6	0	0-67	1	0	0-100	2	0	0-100	5	0	0-79	6	0	0-100
GOOD SAMARITAN HOSP KEARNEY NE 68847	7	14	1-63	22	36	19-60	59	14	4-21	24	0	0-81	175	7	3-11	126	1	1-11	34	0	0-79	80	6	2-14	260	0	1-5
GORDON MEM HOSP GORDON NE 69343	1	0	0-98	3	33	4-84	5	0	1-67	.	.		43	0	2-19	17	6	1-33	3	0	0-100	19	0	1-31	8	0	0-71
GOTHENBURG MEM HOSP GOTHENBURG NE 69138	2	50	3-91	.	.		7	29	4-63	.	.		24	4	1-26	5	0	0-75	4	0	0-100	9	22	1-49	7	0	0-71
GRAND ISLAND MEM HOSP GRAND ISLAND NE 68801	8	38	5-64	15	33	9-76	53	8	5-25	7	0	0-99	97	6	3-13	74	4	1-14	9	0	0-100	50	2	1-16	110	3	0-7
GREAT PLAINS MED CTR NORTH PLATTE NE 69101	4	75	4-79	6	33	9-75	31	3	2-25	5	0	0-100	136	3	2-10	54	0	1-16	22	0	0-93	48	6	1-16	106	0	0-8
HARLAN CO COMM HOSP ALMA NE 68920	.	.		.	.		.	.		.	.		7	0	0-68	11	0	1-45	1	0	0-100	6	17	0-70	6	17	0-86
HENDERSON COMM HOSP HENDERSON NE 68371	.	.		1	0	1-98	.	.		.	.		8	0	0-58	.	.		1	0	0-100	3	0	0-87	.	.	
HOWARD CO COMM HOSP SAINT PAUL NE 68873	.	.		.	.		1	100	0-99	.	.		18	17	1-31	7	0	0-74	1	0	0-100	5	0	0-83	6	0	0-76
IMMANUEL ALCOHOLISM TREATM OMAHA NE 68122	.	.		.	.		.	.		.	.		.	.		.	.		.	.		.	.		.		
IMMANUEL MED CTR OMAHA NE 68111	11	18	9-63	7	71	12-75	50	10	3-20	24	0	0-73	209	3	2-9	90	3	1-13	21	0	0-90	165	7	2-9	120	3	0-7
JEFFERSON CO MEM HOSP INC FAIRBURY NE 68352	2	0	3-92	4	50	11-87	.			.	.		29	3	1-22	9	0	0-60	4	25	0-100	12	17	1-41	17	0	0-42
JEFFREY ANNIE MEM CO HOSP OSCEOLA NE 68651	2	0	2-90	3	0	8-90	1	0	0-100	.	.		12	0	0-43	5	0	1-50	2	0	0-100	16	6	2-35	12	0	0-80
JOHNSON CO HOSP TECUMSEH NE 68450	3	67	8-90	2	0	5-93	3	33	0-83	.	.		30	0	1-21	10	0	0-54	2	0	0-100	10	20	0-47	14	0	0-51
KEARNEY CO COMM HOSP MINDEN NE 68959	1	100	0-97		.		2	0	0-93	.			13	0	1-39	2	0	0-99	.	.		5	0	0-72	5	0	0-69
KIMBALL CO HOSP KIMBALL NE 69145	2	100	1-90	.	.		1	0	0-100	.			9	0	1-50	6	17	1-62	3	0	0-100	14	0	0-38	8	0	0-77
LANNING MARY MEM HOSP HASTINGS NE 68901	15	20	8-55	17	41	19-64	80	8	4-19	33	0	0-64	125	5	2-11	93	3	1-13	17	6	0-98	96	4	2-12	132	1	0-7
LINCOLN GEN HOSP LINCOLN NE 68502	7	43	9-73	5	40	10-81	65	12	3-19	19	0	0-97	144	8	2-11	67	1	1-16	20	0	0-90	54	6	2-16	168	1	0-6
LITZENBERG MEM CO HOSP CENTRAL CITY NE 68826	4	50	7-83	6	33	11-77	1	0	0-100		.		22	14	1-27	11	0	1-44		.		18	6	1-31	12	0	0-55
LUNDBERG MEM HOSP CREIGHTON NE 68729	1	100	1-97		.		2	50	0-90	.	.		24	0	1-25	10	20	1-47	2	0	0-100	11	0	1-43	5	0	0-91

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LUTHERAN COMM HOSP NORFOLK NE 68701	NE-61	703	12	8-16	67	15	12-35	26	23	14-49	18	22	6-43	33	27	11-40	30	53	26-60	9	11	3-55	52	19	10-33
LUTHERAN MED CTR OF OMAHA OMAHA NE 68103	NE-62	1100	9	8-15	75	24	14-37	45	20	16-43	26	12	8-40	51	22	11-34	36	33	27-59	26	19	9-43	66	11	12-32
MELHAM JENNIE M MEM MED CT BROKEN BOW NE 68822	NE-63 *	257	14	9-19	8	25	10-68	16	25	11-54	15	13	5-45	10	40	7-58	15	53	21-67	3	0	1-81	25	24	8-40
MEM HOSP AND HOME SIDNEY NE 69162	NE-64	403	13	8-16	16	38	10-52	16	38	12-55	8	13	1-55	30	40	11-42	10	70	18-74	6	17	3-65	49	8	8-30
MEM HOSP OF DODGE CO FREMONT NE 68025	NE-65 *	1107	11	9-16	99	22	18-39	40	25	17-45	27	22	9-41	43	21	14-40	46	30	25-54	21	24	5-39	96	20	12-30
MEMORIAL COMM HOSP BLAIR NE 68008	NE-66	378	18	10-19	22	23	11-49	6	33	7-71	4	25	3-76	10	30	6-55	11	55	19-72	7	0	3-62	32	25	9-39
MEMORIAL HOSP SCHUYLER NE 68661	NE-67	245	14	10-21	15	13	10-54	15	33	13-57	4	0	1-74	14	21	8-52	6	17	12-78	8	38	10-69	41	20	12-38
MEMORIAL HOSP SEWARD NE 68434	NE-68 *	276	17	9-19	10	40	5-56	20	25	14-53	9	0	2-53	17	47	9-48	17	47	23-67	11	18	2-48	28	29	7-37
MEMORIAL HOSPITAL AURORA NE 68818	NE-69	309	11	9-19	20	30	14-54	9	33	10-66	9	33	4-57	13	15	8-52	15	40	21-67	7	0	2-60	42	12	11-37
METHODIST MIDTOWN OMAHA NE 68131	NE-70	14	0	1-38	.	.		.	.		.	.		.	.		.	.		.	.		.	.	
MIDLANDS COMM HOSP PAPILLION NE 68046	NE-71 *	604	10	9-17	30	27	15-48	39	21	17-46	19	11	5-40	26	19	9-41	19	42	21-63	16	13	3-41	78	19	13-33
MORRILL CO COMM HOSP BRIDGEPORT NE 69336	NE-72 *	86	9	7-23	1	0	0-97	3	67	4-84	1	0	1-97	12	33	10-58	1	0	0-97	5	0	4-71	7	14	6-66
NEBRASKA METHODIST HOSP OMAHA NE 68114	NE-73 *	2632	10	8-14	274	22	16-32	80	25	18-38	59	15	7-29	94	26	15-33	98	37	29-49	54	15	9-33	148	16	13-28
NEMAHA CO HOSPITAL AUBURN NE 68305	NE-74 *	279	18	10-20	10	50	16-71	17	53	16-59	10	20	8-60	13	54	8-53	6	33	11-77	3	33	2-81	51	20	13-37
NIOBRARA VALLEY HOSP LYNCH NE 68746	NE-75 *	114	17	9-24	8	63	12-72	3	33	2-82	5	0	3-71	.	.		7	14	10-72	2	0	1-89	27	19	10-41
OAKLAND MEM HOSP OAKLAND NE 68045	NE-76	124	16	11-25	4	50	4-77	3	67	3-83	4	0	2-75	16	44	10-52	4	25	9-85	1	0	3-99	29	21	12-44
OGALLALA COMMUNITY HOSP OGALLALA NE 69153	NE-77 *	213	17	9-20	14	36	10-56	12	42	15-65	9	22	3-53	11	36	9-59	8	63	15-75	4	0	1-74	22	23	10-45
OSMOND GENERAL HOSPITAL OSMOND NE 68765	NE-78	221	23	14-26	7	14	7-67	21	43	16-55	5	0	2-69	21	52	13-51	16	63	22-67	3	0	1-81	32	13	13-44
OUR LADY OF LOURDES HOSP NORFOLK NE 68701	NE-79 *	509	15	10-19	43	16	13-40	36	42	17-46	13	23	7-52	31	23	11-41	14	43	19-67	15	27	6-48	40	15	12-39
PAWNEE CO MEM HOSP PAWNEE CITY NE 68420	NE-80	148	14	9-21	9	56	11-67	7	57	8-69	5	0	1-68	5	20	3-70	2	50	4-92	10	10	6-58	17	12	7-47
PENDER COMM HOSP PENDER NE 68047	NE-81 *	212	13	12-24	11	36	9-59	10	30	12-66	3	0	1-81	20	25	13-51	6	17	12-79	5	20	6-75	41	17	14-41
PERKINS CO COMM HOSP GRANT NE 69140	NE-82	191	8	6-17	10	30	5-54	2	0	1-89	5	40	2-69	4	0	2-74	8	75	12-71	1	0	3-99	23	9	8-42
PHELPS MEM HEALTH CTR HOLDREGE NE 68949	NE-83	625	11	9-17	28	36	14-48	16	19	15-59	12	8	2-46	23	39	12-47	23	26	25-64	15	20	4-45	75	17	14-35
PHS INDIAN HOSPITAL WINNEBAGO NE 68071	NE-84 *	41	2	3-23	.	.		1	0	0-97	.	.		.	.		.	.		1	0	0-98	5	0	2-68
PIONEER MEMORIAL COMMUNITY MULLEN, NE 69152	NE-85 *	28	7	6-34	.	.		3	0	3-83	2	0	0-89	2	0	2-89	1	100	1-97	1	0	0-98	7	14	4-63
PLAINVIEW PUB HOSP PLAINVIEW NE 68769	NE-86	141	12	8-20	8	25	4-60	5	40	4-72	.	.		13	23	11-57	3	33	4-84	2	0	0-92	25	16	8-40

*Written Comments Not Submitted

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
LUTHERAN COMM HOSP NORFOLK NE 68701	7	57	4-65	2	0	2-90	28	0	3-28	.	.	.	100	4	2-12	51	2	0-17	14	0	0-96	39	5	2-20	48	2	0-17
LUTHERAN MED CTR OF OMAHA OMAHA NE 68103	7	29	10-73	6	50	13-80	32	9	2-25	54	0	0-38	86	7	2-13	20	0	0-30	4	0	0-100	57	9	1-15	64	2	0-11
MELHAM JENNIE M MEM MED CT BROKEN BOW NE 68822	3	0	1-82	1	0	0-97	6	0	1-62	.	.		36	8	1-19	2	0	0-93	3	0	0-100	22	5	1-26	18	6	0-37
MEM HOSP AND HOME SIDNEY NE 69162	3	33	7-89	2	100	8-96	14	14	1-38	.	.		54	4	1-15	19	11	1-31	3	0	0-100	33	3	1-20	25	0	0-28
MEM HOSP OF DODGE CO FREMONT NE 68025	8	25	10-71	3	0	3-84	50	6	5-24	5	0	0-100	140	3	3-11	66	0	1-15	22	0	0-74	53	0	1-15	93	0	1-9
MEMORIAL COMM HOSP BLAIR NE 68008	1	0	0-98	2	50	6-94	1	100	0-98	.			34	6	1-21	17	6	1-34	2	0	0-100	17	6	1-32	9	0	0-56
MEMORIAL HOSP SCHUYLER NE 68661	3	100	5-86	.	.		10	10	0-48	.	.		29	3	1-23	9	0	0-63	2	0	0-100	20	5	0-28	3	0	0-97
MEMORIAL HOSP SEWARD NE 68434	.			1	0	0-97	13	8	1-40	.	.		36	6	1-19	14	7	0-41	4	0	0-100	12	8	0-42	7	0	0-96
MEMORIAL HOSPITAL AURORA NE 68818	1	0	1-97	3	0	6-87	14	0	1-39	1	0	0-100	31	6	1-22	17	12	0-34	4	0	0-100	21	0	1-27	17	0	0-49
METHODIST MIDTOWN OMAHA NE 68131	.	.		.	.		.	.		.			.	.		.	.		.	.		.	.		.	.	
MIDLANDS COMM HOSP PAPILLION NE 68046	5	40	6-76	4	0	7-82	26	8	1-26	6	0	0-100	69	4	1-13	17	0	0-35	2	0	0-100	47	2	1-17	48	0	0-16
MORRILL CO COMM HOSP BRIDGEPORT NE 69336	.	.		.	.		.	.		.	.		10	0	0-48	.	.		1	0	0-100	3	0	0-86	4	0	0-76
NEBRASKA METHODIST HOSP OMAHA NE 68114	17	24	17-64	12	17	18-70	81	5	4-18	102	0	0-11	257	5	3-10	90	1	1-13	38	0	0-68	255	9	3-8	235	1	0-5
NEMAHA CO HOSPITAL AUBURN NE 68305	4	50	1-77	1	0	0-97	.	.		.	.		31	10	1-21	5	0	0-70	1	0	0-100	17	12	1-32	18	6	0-48
NIOBRARA VALLEY HOSP LYNCH NE 68746	.	.		1	100	3-100	1	0	0-97	.	.		15	13	1-35	2	50	0-95	.	.		5	20	0-72	9	0	0-66
OAKLAND MEM HOSP OAKLAND NE 68045	.	.		1	100	2-98	1	0	0-98	.	.		14	0	0-38	9	0	0-52	1	0	0-100	4	0	0-85	1	0	0-100
OGALLALA COMMUNITY HOSP OGALLALA NE 69153	.			.	.		4	50	0-74	.	.		22	5	1-27	7	0	0-70	3	0	0-100	20	10	0-28	10	0	0-89
OSMOND GENERAL HOSPITAL OSMOND NE 68765	1	0	2-100	.	.		4	25	0-75	.	.		29	0	1-23	4	0	0-84	.			20	0	1-28	1	0	0-100
OUR LADY OF LOURDES HOSP NORFOLK NE 68701	2	100	6-94	8	38	14-75	25	4	2-27	1	0	0-100	48	13	2-17	31	6	1-23	12	0	0-97	18	11	2-33	32	0	0-23
PAWNEE CO MEM HOSP PAWNEE CITY NE 68420	1	100	0-97	.	.		.	.		.	.		15	0	1-35	6	50	1-62	1	0	0-100	17	0	0-32	4	0	0-96
PENDER COMM HOSP PENDER NE 68047	3	0	2-83	3	0	5-85	1	0	0-99	.	.		23	13	1-27	11	0	0-50	2	0	0-100	12	0	0-42	4	0	0-96
PERKINS CO COMM HOSP GRANT NE 69140	1	0	0-99	1	100	2-98	1	0	0-98	.			34	3	1-20	6	0	0-68	.	.		21	5	0-28	13	0	0-51
PHELPS MEM HEALTH CTR HOLDREGE NE 68949	7	43	5-67	4	75	11-86	17	0	2-36	.	.		105	5	2-12	29	0	1-24	11	0	0-98	32	3	1-20	28	0	0-27
PHS INDIAN HOSPITAL WINNEBAGO NE 68071	.	.		1	100	1-97	.	.		.	.		4	0	1-73	2	0	0-90	.	.		5	0	0-72	1	0	0-100
PIONEER MEMORIAL COMMUNITY MULLEN, NE 69152	1	0	0-99	.	.					.	.		3	0	0-97							1	0	0-100			
PLAINVIEW PUB HOSP PLAINVIEW NE 68769	2	50	2-90	1	0	1-97	2	0	0-97	.	.		21	5	1-28	11	9	0-45				10	10	0-51	7	0	0-94

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PROVIDENCE MED CTR WAYNE NE 68787	NE-87 *	225	13	8-19	6	0	3-65	5	20	5-73	5	0	3-71	16	25	7-46	14	36	21-69	3	0	1-82	35	23	9-37
ROCK CO HOSP BASSETT NE 68714	NE-88	88	17	10-28	1	100	1-98	3	33	4-84	3	33	2-82	12	25	12-61	9	33	13-70	2	50	0-93	10	20	8-60
RUSHVILLE COMM HOSP RUSHVILLE NE 69360	NE-89 *	7	43	6-65	.	.		1	0	1-97	1	100	0-97	1	0	0-97	.	.		.	.		1	0	0-99
SACRED HEART HOSP INC LOUP CITY NE 68853	NE-90	83	13	14-32	1	0	0-99	2	0	6-94	1	0	1-97	9	22	10-65	3	33	8-89	1	0	0-99	24	17	17-54
SARGENT DIST HOSP SARGENT NE 68874	NE-91	95	15	9-25	5	20	4-71	3	33	5-86	5	0	3-70	5	60	5-72	5	60	14-84	4	0	2-75	13	23	6-50
SAUNDERS CO COMM HOSP WAHOO NE 68066	NE-92 *	173	15	11-24	11	27	7-56	9	56	9-64	6	0	4-66	3	0	1-81	8	38	11-70	3	0	1-81	37	16	13-41
ST ANTHONYS HOSP O NEILL NE 68763	NE-93 *	240	12	8-19	2	50	0-90	5	60	4-72	9	33	9-65	16	13	8-49	5	40	11-81	11	0	2-48	34	9	10-38
ST ELIZABETH COMM HEALTH C LINCOLN NE 68510	NE-94 *	1362	11	8-14	152	22	15-33	41	17	17-45	28	18	7-37	42	24	11-36	38	42	25-56	15	20	3-43	75	15	13-33
ST FRANCIS MEDICAL CTR GRAND ISLAND NE 68801	NE-95	1020	12	8-15	70	20	13-35	38	55	19-49	17	24	6-45	41	22	12-38	40	58	28-59	11	18	4-51	71	21	14-35
ST FRANCIS MEM HOSP WEST POINT NE 68788	NE-96	277	12	9-19	19	26	10-50	10	40	9-62	5	20	3-70	5	40	2-68	17	35	21-66	9	0	2-54	41	20	12-38
ST JOSEPH HOSP OMAHA NE 68108	NE-97	2645	12	9-16	197	25	19-35	80	23	18-39	70	21	11-32	120	18	16-32	126	33	28-47	49	16	9-34	188	22	16-30
ST MARYS HOSP NEBRASKA CITY NE 68410	NE-98 *	328	16	11-20	8	0	4-59	16	31	11-54	5	20	2-68	23	30	15-51	18	56	21-64	9	0	2-53	34	21	11-40
THAYER CO MEM HOSP HEBRON NE 68370	NE-99 *	145	8	7-20	6	17	3-66	.	.		4	25	2-75	4	25	4-77	3	0	8-89	3	0	0-84	20	25	10-48
TILDEN COMMUNITY HOSP TILDEN NE 68781	NE-100	129	10	8-22	2	100	2-90	7	43	6-66	2	50	1-89	14	21	9-54	6	17	10-76	2	0	0-92	25	0	6-37
TRI-CO AREA HOSP DIST LEXINGTON NE 68850	NE-101	350	12	9-18	18	28	11-52	9	22	10-66	16	19	6-46	15	20	8-50	5	60	12-83	6	0	2-64	45	16	13-39
UNIV OF NEBRASKA MEDICAL C OMAHA NE 68105	NE-102	975	11	9-16	93	25	21-43	18	50	11-51	13	23	6-50	29	14	10-41	34	26	25-58	24	13	11-48	72	21	12-33
VALLEY CO HOSP ORD NE 68862	NE-103*	167	16	9-21	9	56	5-58	8	50	9-67	3	0	1-81	9	22	7-61	8	38	11-70	6	17	1-63	29	10	9-40
WAKEFIELD HEALTH CARE CTR WAKEFIELD NE 68784	NE-104*	77	13	7-23	2	100	0-89	1	0	0-97	5	0	2-68	7	43	6-65	5	20	9-79	3	33	0-84	7	14	4-62
WARREN MEMORIAL HOSP FRIEND NE 68359	NE-105*	133	13	7-20	1	100	1-97	5	60	5-72	1	0	0-100	4	0	2-74	6	67	14-80	4	0	2-74	24	17	8-40
WEBSTER CO COMM HOSP RED CLOUD NE 68970	NE-106*	92	21	12-30	3	67	8-89	9	11	10-66	1	0	0-99	3	33	2-82	6	67	12-78	3	0	1-81	18	33	13-53
WEST HOLT MEM HOSP ATKINSON NE 68713	NE-107*	140	19	8-21	6	33	9-75	4	50	4-78	6	33	4-67	10	50	8-60	8	25	11-70	1	0	0-98	16	19	7-47
WEST NEBRASKA GEN HOSP N SCOTTSBLUFF NE 69361	NE-108	1925	10	8-14	195	19	17-33	54	26	16-41	36	17	7-34	57	23	14-37	61	31	26-51	21	29	5-40	132	16	12-27
YORK GEN HOSP YORK NE 68467	NE-109	398	15	11-20	24	38	14-50	13	15	12-60	8	25	3-57	34	29	14-44	17	65	26-70	6	0	1-64	51	18	12-36

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

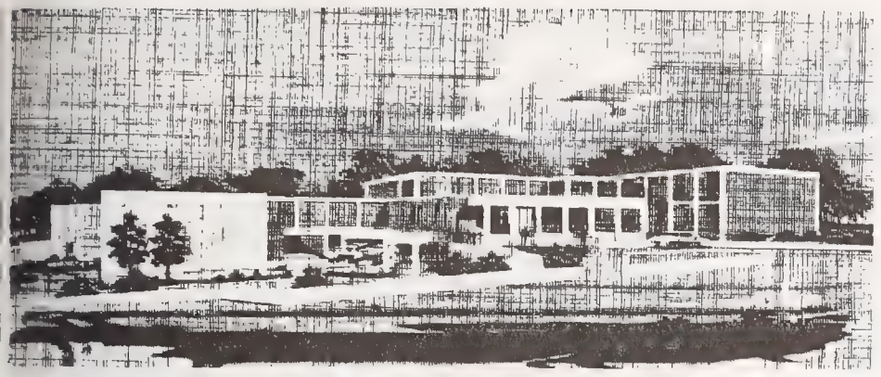
HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
PROVIDENCE MED CTR WAYNE NE 68787	1	0	1-97	.	.		11	9	0-45	.	.		29	7	1-22	13	0	0-44	4	0	0-100	14	14	1-37	14	0	0-52
ROCK CO HOSP BASSETT NE 68714	.	.		1	100	1-97	.	.		.	.		11	0	1-44	5	0	0-79	1	0	0-100	6	0	1-62	3	0	0-98
RUSHVILLE COMM HOSP RUSHVILLE NE 69360	.	.		.	.		.	.		.	.		2	50	3-91	.	.		.	.		.	.		.	.	
SACRED HEART HOSP INC LOUP CITY NE 68853	1	100	0-97	.	.		2	0	0-91	.	.		5	0	0-77	8	25	5-59	.	.		10	0	0-47	1	0	0-100
SARGENT DIST HOSP SARGENT NE 68874	2	50	5-94	.	.		.	.		.	.		8	13	0-59	4	0	1-74	.	.		18	6	1-31	2	0	0-100
SAUNDERS CO COMM HOSP WAHOO NE 68066	4	50	10-87	1	0	0-97	1	0	0-100	.	.		14	0	1-37	11	0	0-45	2	0	0-100	6	0	0-68	8	0	0-78
ST ANTHONYS HOSP O NEILL NE 68763	2	50	1-90	2	0	2-90	1	0	0-97	.	.		21	5	1-28	1	0	0-100	4	0	0-100	17	0	1-32	10	0	1-46
ST ELIZABETH COMM HEALTH C LINCOLN NE 68510	7	57	11-75	9	56	14-72	70	9	3-18	82	0	0-16	160	4	2-9	68	6	1-15	25	0	0-69	51	6	1-16	120	1	0-7
ST FRANCIS MEDICAL CTR GRAND ISLAND NE 68801	5	20	3-72	4	50	4-78	41	12	3-23	47	0	0-31	112	6	2-12	74	1	1-14	18	0	0-99	69	3	2-14	131	1	0-7
ST FRANCIS MEM HOSP WEST POINT NE 68788	1	100	0-99	4	50	8-83	12	0	1-42	.	.		43	5	2-19	17	0	1-34	1	0	0-100	13	0	0-39	9	0	0-75
ST JOSEPH HOSP OMAHA NE 68108	45	31	9-42	14	14	17-65	58	16	4-21	49	0	0-21	154	5	2-10	107	5	2-14	18	6	0-81	346	7	3-9	114	0	1-8
ST MARYS HOSP NEBRASKA CITY NE 68410	5	60	16-87	5	40	12-83	9	11	1-50	.	.		31	3	1-21	22	9	1-28	3	0	0-100	23	9	1-27	15	0	0-55
THAYER CO MEM HOSP HEBRON NE 68370	4	0	2-76	5	20	5-74	3	0	0-84	.	.		20	0	1-29	7	0	0-67	1	0	0-100	6	0	0-66	9	0	0-72
TILDEN COMMUNITY HOSP TILDEN NE 68781	2	0	2-91	2	0	3-91	1	0	0-100	.	.		9	22	1-49	.	.		2	0	0-100	8	0	0-54	4	0	0-100
TRI-CO AREA HOSP DIST LEXINGTON NE 68850	13	46	8-58	1	0	0-97	9	22	1-50	.	.		39	5	1-19	19	0	0-33	.	.		20	0	0-28	20	0	0-37
UNIV OF NEBRASKA MEDICAL C OMAHA NE 68105	9	33	6-62	5	40	12-83	24	4	2-28	17	0	0-74	73	7	4-18	25	0	2-28	5	0	0-100	51	10	1-16	56	2	0-14
VALLEY CO HOSP ORD NE 68862	2	50	6-94	.	.		2	0	0-96	2	0	0-100	28	7	0-22	4	50	1-73	2	0	0-100	6	33	0-70	6	0	0-87
WAKEFIELD HEALTH CARE CTR WAKEFIELD NE 68784	2	50	1-90	.	.		.	.		.	.		6	0	0-67	1	0	0-99	.	.		8	13	0-61	1	0	0-100
WARREN MEMORIAL HOSP FRIEND NE 68359	3	33	2-83	4	25	6-81	.	.		.	.		15	0	0-37	4	0	0-92	.	.		7	0	0-60	10	0	0-80
WEBSTER CO COMM HOSP RED CLOUD NE 68970	1	0	1-98	1	0	1-97	2	0	0-92	1	0	0-100	9	22	0-50	2	0	0-94	.	.		.	.		6	0	0-82
WEST HOLT MEM HOSP ATKINSON NE 68713	4	25	3-77	.	.		1	0	0-100	.	.		21	29	1-29	4	50	1-73	5	0	0-100	7	14	0-66	13	0	0-75
WEST NEBRASKA GEN HOSP N SCOTTSBLUFF NE 69361	5	0	2-71	2	0	2-90	63	16	3-18	30	0	0-71	254	8	3-9	120	3	1-12	27	0	0-82	139	7	3-11	150	1	0-6
YORK GEN HOSP YORK NE 68467	1	100	2-98	7	43	11-74	14	0	2-39	.	.		40	8	3-22	10	0	0-52	5	0	0-100	26	4	1-23	21	0	0-48

*Written Comments Not Submitted.

Antelope Memorial Hospital
Neligh, Nebraska

Provider Number: 28-0011

The hospital's comments consisted primarily of annotations to the patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish the comments because of the numerous patient identifiers contained in the data.



Beatrice Community Hospital and Health Center

1110 NORTH TENTH STREET
BEATRICE, NEBRASKA 68310
402-228-3344

October 16, 1987

The Honorable William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

The following information represents the response of Beatrice Community Hospital & Health Center to the release of the Medicare Mortality Data:

1. A review of the information released proves to be accurate. A total of 87 Medicare deaths, all listed on the print out, occurred during calendar year 1986.
   a. Of these 87, 65 deaths occurred in the Acute Hospital and 22 deaths occurred post-discharge from the hospital. Care in 19 of the 22 post-hospital deaths was being provided at the Skilled and Long Term Care Nursing Units the hospital operates.
   b. Average age of those who died was 80.
   c. There was only one (1) patient in the renal disease category, thus the 100% death rate. All other cases fell within the range of predicted mortality rates.

2. Beatrice Community Hospital & Health Center is located in Gage County, NE. The hospital serves an elderly population. In 1985, 18.2% of the population was over 65 and for 1986, 54% of the admissions to the acute hospital were for Medicare patients. A county-wide survey and analysis by Planned Approach to Community Health (PATCH) in 1986 determined the leading cause of death in Gage County as the following (in rank order):
   1. All heart diseases
   2. Cancer
   3. Other injuries
   4. Motor vehicle fatalities

   This information coincides with the mortality data by diagnosis category. The highest number of hospital deaths occurred in the four (4) categories relating to cardiovascular disease.

3. Because of serving a high elderly population, the hospital does provide other services for the elderly. These are a Skilled Nursing Facility, an Intermediate

Care Facility and a Home Health Agency, and numerous out patient services, and Retirement Housing Units for the elderly.

The Beatrice Community Hospital & Health Center is licensed for 81 acute, 14 alcohol treatment, 45 ICF, 42 skilled nursing beds, and is a not for profit corporation. The hospital has a long history of being accredited by the Joint Commission on Accreditation of Hospitals.

4. Quality health care has always been a goal for all departments of the facility. When analyzing quality of care in a health care facility, various factors are evaluated. The Quality Assurance/Risk Management programs are built on the promise of exhibiting standards of care, on-going review of that care using the standards, problem solving, action taken to solve problems, and followup monitoring. Other factors included in monitoring patient quality care are hospital infection rates, appropriateness of drug utilization, blood transfusion administration, concurrent and retrospective patient care review, surgical case review, and mortality review. Together, all of these factors are needed to determine quality.

   The hospital appreciates the opportunity to respond to this information ahead of publication. The additional hospital information is meant to clarify the need and services being provided to citizens in Gage County, Nebraska.

Sincerely,

Kenneth J. Zimmerman

Kenneth J. Zimmerman
Administrator

DICK MARTIN, *Administrator*

Brown County Hospital

945 East Zero Street Phone (402) 387-2800 Ainsworth, NE 69210

October 26, 1987

Department of Health and Human Services
Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

In response to the mortality data I/We feel that even if the material presented is accurate, which it is not, it is inadequate and presents an injustice to our hospital and our staffs pride in the quality of care that is given to our patients.

The first error could be found in the "Range of Predicted Mortality Rates" presented by you. Our hospital shares a populas with a hospital seventeen miles away and the medical staffs of the two hospitals is also shared; however the "Mortality Rates" are much different, in one case 31% different. It is hard to understand how the same people can go to the same medical staff only at different facilities 17 miles apart and your "Predicted Mortality Rates" can change so dramatically.

Of the twenty cases presented to us for "Actual Mortality Rate", ten of the cases or 50% had a "No Code" or "No Heroic Measures" order. Anyone can see that had this stastic been taken into account how it might alter greatly the numbers sent to us. Of the three "Diagnostic Categories" we were out of the "Range of Predicted Morality Rates" only seven cases were presented and five of these had such an order. Had these wishes of the patient and/or family been taken into consideration we would not have exceeded any of these predicted ranges.

The age of the cases must also be considered. At our facility the average age of the 20 cases is 83.4 years. Seventy five percent of those being 81 years old or above. Twenty five percent of those being 90 years old or above. Five percent of those cases 100 years or above.

It is also hard for me to see how 1 to 3 cases in a category can determine a fair stastic. If only 1 patient is admitted to a category and the case results in death, without any other consideration this is 100% death rate. How this could be a fair determination of the quality of care without any other considerations is well beyond me. I am also not sure stastically how this could be of value to anyone, one case can in no way show a pattern of quality of care.

Of the cases presented to us 15% died out of our hospital setting. It is the opinion of our medical staff that all of these cases were unrelated to their hospital stay. This also is not considered in the final stastics.

DICK MARTIN, *Administrator*

Brown County Hospital

945 East Zero Street Phone (402) 387-2800 Ainsworth, NE 69210

There was also a 10% error on the "Date of Death" category as sent to us.

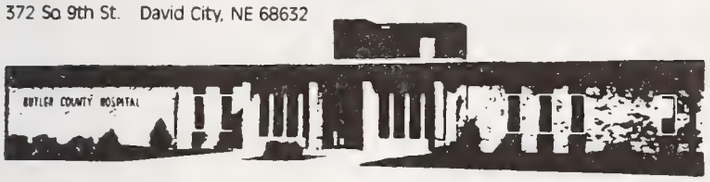
If stastics like these are presented the most anyone could do is strive to make them as accurate as possible taking all factors into consideration. Severity of illness, intensity of care, patient and family history, religious backround, etc. , are not mentioned in these figures. When the government determines taht patients are all unique individuals and cannot be lumped into cold stastical figures, inaccurate at that, to be judged for whatever reason we all might be better off. These figures do not scratch the surface of the quality of care given in rural America, or the pride of the people giving that care to their neighbors and friends.

Sincerly,

Dick Martin

Dick Martin
Administrator
Brown County Hospital 280110
945 East Zero
Ainsworth, Ne. 69210

BUTLER COUNTY HOSPITAL
372 So 9th St. David City, NE 68632



October 16, 1987

Health Care financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
PO Box 26684
Baltimore, Maryland 21207

Dear Sir:

Re: Hospital Mortality information - Providor # 28-0091

After review of the information on our hospital supplied by HCFA, I am submitting to you corrected information on 7 of the cases. One of them is still alive. The other six did not die within 30 days of admission to our facility. All of these six had several admissions to the hospital without leaving the facility. They were acute, swing bed and in some cases self pay ICF during parts of their stay. Your data took the last admission which may have been swing bed or may have been acute.

Even though we are in the predicted range for mortality rates using corrected information, it seems to me that use of mortality data as a quality indicator is misleading in many cases. As an example, our hospital is a rural facility with a high percentage of elderly. Your data for our hospital shows that we had 33 people on the list. Only six of them were less than 75 years of age. Statistics for us are much different than a hospital in an urban area serving a lower percentage of elderly patients. There are many other indicators of quality care which should be considered.

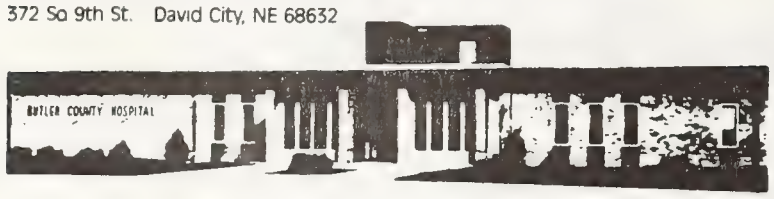
Thank you for the opportunity to comment.

Sincerely,

JoEllen Vrbka
Administrator

BUTLER COUNTY HOSPITAL

372 So 9th St. David City, NE 68632



Hospital ID # 280091

Corrected information:

[redacted] [redacted] Date of admission 12-30-85 Still alive

Incorrect admission dates

[redacted] Admitted acute care 11-11-86 - Transferred to Swing Bed 11-24-86 - Died 12-15-86 your date 12-14-86

[redacted] Admitted acute care 7-14-86 and discharged 7-22-86. Readmitted as a self pay swing bed 8-6-86 to 8-27-86. Died 9-05-86 He was not receivig acute services during last admission. your date 8-6-86

[redacted] Admitted Swing Bed after discharge from Omaha hospital on 3-20-86. Went home 4-6-86. Readmitted acute 4-22-86 and died on 4-28-86. your date 4-22-86

[redacted] Admitted to acute care 9-14-86. Transferred to Swing Bed on 10-1-86 and died on 10-31-86 your date 10-1-86

[redacted] Admitted to Swing Bed 10-13-86. Transferred to acute care 10-27-86. Transferred back to swing bed 11-7-86 and discharged 11-15-86. Died at home 11-27-86 from other causes. your date 11-7-86

[redacted] Admitted to Swing bed 10-30-86 and transferred to Acute care on 11-18. Transferred back to Swing Bed on 11-27-86 and died on 12-7-86 your date 11-27-86

I requested a clarification on which admission counts two weeks ago. Perhaps you have clarified and will be able to remove some or all of these from the list.

Cambridge Memorial Hospital

West Highway 6 & 34
Cambridge, Nebraska 69022

COMMENTS ON THE HCFA MORTALITY DATA

CAMBRIDGE MEMORIAL HOSPITAL, CAMBRIDGE, NEBRASKA
HOSPITAL 280049

The data used by HCFA indicates there were 139 Medicare patients admitted to Cambridge Memorial Hospital in 1986. This data also indicates there were 28 deaths within 30 days of their admission to the hospital. Our hospital records show there were 187 Medicare admissions in 1986. Eleven of these 28 deaths occurred while the patient was in the acute care setting of the hospital; 12 occurred in our Skilled Nursing Facility Swing Bed Unit; 2 deaths occurred in another nursing home facility; 2 deaths occurred in our Intermediate Care Facility Unit of Cambridge Memorial Hospital and one patient died at another hospital. It was also determined by our records that one patient's cause of death was listed incorrectly. Presumably the discrepancy in the number of admissions reflects multiple admissions to different hospitals or possibly changes in level of care by an individual beneficiary. We have no way of verifying whether the number of Medicare patients treated at Cambridge Memorial Hospital is correct.

During further study of the HCFA data for Cambridge Memorial Hospital the average age of the patients listed in the mortality data was 84.5 years. Cambridge Memorial Hospital is a 31 bed acute facility with those 31 beds also having the capability of Skilled Swing Bed services. There is also a 36 bed attached Long Term Care Wing. Cambridge also supports an all-volunteer Hospice program. These services help to account for the number of elderly deaths associated with the hospital.

Chadron Community Hospital
821 Morehead Street -:- Chadron, Nebraska 69337
Telephone 432-5586

October 23, 1987

RE: COMMENTS ON THE HCFA MORTALITY DATA

Data Verification

The data used by HCFA indicate that a total of 34 Medicare patients admitted to Chadron Community Hospital died within 30 days of admission. Of these, 24 died while still a patient of the hospital, while 10 died after discharge. Note that Patient ID [redacted] was listed twice; therefore the mortality list actually numbers 33 In-hospital deaths. Please remove ID [redacted] from our list.

Interpretive Remarks

In one of the diagnostic categories, renal disease, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. Several factors may account for this finding.

This hospital with its sole provider status serves a significantly high number of Medicare patients with multiple and severe health care problems who reside in its service areas. Additionally, the nearest skilled care nursing home is 60 miles away; consequently, some patients are admitted from ICF's to this hospital shortly before death.

Patient ID [redacted] was diagnosed as having cancer of the prostate 1-22-80. At the time of death, the patient had metastases with ureteral obstruction. Patient ID [redacted] was 95 years old with a history of chronic renal insufficiency. These two expected deaths account for a 50% mortality rate in diagnostic catagory RN. Patient [redacted] in diagnosic catagory GU died two days post-operatively of acute pulmonary edema and patient [redacted] had a CVA six hours post TURP.

We wish to make the following comments: 1. Of the 24 In hospital deaths, 5 were DRN. 2. All 10 of the post-hospital deaths were persons with multiple health problems and only one was unexpected.

Patient ID [redacted] died at home with a coroner signing the death certificate. On hospital admission, patient was also a poorly controlled, insulin dependent diabetic.

Patient ID [redacted] died three days post-hospital discharge. The patient had a long history of D.M. Type I, had previous M.I. with insertion of permanent pacemaker, and was treated for angina on 11-11-86 and was discharged to and ICF.

Thank you for considering the comments regarding Chadron Community Hospital's mortality rate. Of these 33 deaths, 23 patients were 80 years old or above and 5 of these 23 were 90 years old or above. This is a reflection of the quality health care Medicare patients receive in this area.

Sincerely,

Patricia E Kaus

Patricia E. Kaus, R.N.
U/R Coordinator

Chase County Community Hospital

600 West 12th St, Imperial, NE 69033 • (308) 882-7111

"Caring For Our Friends And Neighbors"

October 20th, 1987 Medicare #280018

Mr. William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Mr. Roper M.D.,

In response to your September 21st, 1987 letter relating to HCFA's selected mortality information, I would like to reply with the following corrections to your published data.

In calendar year 1986, Chase County Community Hospital admitted 316 Medicare patients, not the 195 shown by your statistics. A 62% error might be close enough for Government work, but it does not truly reflect the Medicare experience of our institution. Your understatement shorts our admissions by 121 Medicare Patients. There were a total of 27 deaths in 1986 and 25 of those deaths occured in medicare patients. The overall mortality rate for a medicare patient at Chase County Community Hospital was 7.9%, not your reported 15%; again an error of 7.1%. Of the 25 medicare deaths, only 14 of these patients were actually acute care patients, the rest were patients in our Skilled Nursing, Swing Bed program. We are the only Skilled Care Nursing Home in our area. This would then give Chase County Hospital a mortality rate of 4.4% of total medicare admissions. Again a gross overstatement on your part.

In October, 1984, Chase County Community Hospital established it's Swing Bed Skilled Nursing program. The program is for those people who no longer need acute hospital care, (reducing Medicare costs) but are not able to live at home and their level of care is above that delivered by the local community nursing home. If not for our Swing Bed program, these patients would have had to been transferred at least 100 miles to the nearest Skilled Nursing facility. Eleven of the deaths at Chase County Community Hospital in the calendar year 1986 occured in these patients, but were listed outside of your guidelines in our statistics.

All patients who died within 30 days of being admitted to Chase County Community Hospital, (either acute or skilled nursing care) died in the Skilled Nursing Care, or at the community Intermediate Care facility. No one died that was not receiving direct medical and/or nursing supervision.

The average age at the time of death at Chase County Community Hospital was 82.3 years of age for Medicare patients. For males the average age at death was 78.5 years, and for females it is 76.9 years. A person dying at Chase County Community Hospital lived 9 plus years longer than the average person in Nebraska.

Looking at only two of the fifteen diagnostic categories provided by the Health Care Financing Administration, Chase County Community Hospital actually had the following statistics. Four of the diagnoses of cancer actually had 42 separate admissions, in retrospect, we had 6 cancer deaths for a mortality rate of 14.2%. For the diagnostic category of sepsis we had 3 admissions with two of these patients dying, giving us a true mortality rate of 67%, not your reported rate of 100%. Your data in these areas is again incorrect and misleading.

In conclusion, I would like to say that the data provided by the Department of Health and Human Services, Health Care Finance Administration, is at the very best, inaccurate. There is no way I, nor anyone else, will be able to use this data for any constructive purpose. There is little value in the data for a Peer Review Organization or the general public to formulate any meaningful conclusions about the health care provided by this facility.

If you should proceed with the collection and publication of this untruthful data, than for the sake of us taxpayers, publish the costs associated in the collection of this garbage.

Upset;

Harold L. Krueger Jr.

Harold L. Krueger Jr
Administrator

CLARKSON HOSPITAL
Nebraska's first Hospital

COMMENTS ON THE HCFA MORTALITY DATA
BISHOP CLARKSON MEMORIAL HOSPITAL

DATA VERIFICATION:

Bishop Clarkson Memorial Hospital is a tertiary care hospital with a high percentage of patients with terminal cancer, end-stage heart disease, and end-stage renal disease. Clarkson Hospital admitted 5881 Medicare patients in 1986, of which, according to the HCFA data after correction by Clarkson Hospital, 316 expired in the hospital including those in their tenth and eleventh decades. Their deaths were usually associated with multi-system failure. Another 47 patients died after discharge from their serious diseases as expected; this includes those patients discharged to our hospice program. The original data received from HCFA indicates that Clarkson had a total of 3671 Medicare patients, that 317 patients died while hospitalized, and that 51 died after discharge. In addition to the above discrepancies, HCFA's statistics for individual categories do not add up to their category for "all causes" as one would expect. The HCFA total for "all causes" is 3671 cases; individual categories total 2640 cases, with the "all other conditions" (UN) category omitted. Furthermore, the apparent cause of death (principal diagnosis) listed for the 47 patients who died outside the hospital was really the diagnosis for the inpatient admission and not necessarily the cause of death. It should be noted that we are unable to verify HCFA's statistics as published.

The following errors were noted in the HCFA data during the verification process:

1. Three cases were duplicated in the report.

[redacted]	Adm. 10/16/86	Exp. 11/12/86
	"	"
[redacted]	2/18/86	Exp. 2/21/86
	"	"
[redacted]	10/11/86	Exp. 10/17/86
	"	"

In each case, the first patient listed is in error and the second is correct.

Bishop Clarkson Memorial Hospital
44th & Dewey Avenue
Omaha, Nebraska 68105-1018
402-559-2000

2. Discharge date was erroneous in the following cases:

[redacted] 01/23/86 Exp. 2/2/86 while still hospitalized, not 2/6/86 as listed

[redacted] 10/19/86 Exp. 10/24/86 while still hospitalized, not 10/29/86 as listed.

3. The following patients were included in the 1986 data, but should be counted in the 1987 data because they were readmitted in 1987 and expired within 30 days of that admission, though, technically they also expired within 30 days of their December 1986 admissions.

[redacted] 12/3/86 Dism. 12/8/86
This admission was the last hospitalization in 1986 for this patient, however, the patient was readmitted and expired on 1/2/87, hence, should be included in the 1987 data since he was readmitted to the hospital in 1987.

[redacted] 12/23/86 Dism. 12/24/86
This admission was the last hospitalization in 1986 for this patient, however, the patient was readmitted on 1/6/87, expired after dismissal on 1/10/87, hence, should be included in the 1987 data since he was readmitted to the hospital in 1987.

Therefore, according to the hospital records, there were 316 patients who died in the hospital. We cannot verify the fact that the remaining 47 patients died after discharge within 30 days of their last admission. The medical records simply indicate that the patients were dismissed alive. We can verify, however, that these patients' conditions were such that 19 were able to be dismissed to home (or hospice care), another 26 were dismissed to either skilled nursing facility (20) or to an intermediate care facility (6), and 2 patients were transferred to another hospital. It is also questionable whether the two patients transferred to another hospital should be included in Clarkson's statistics since the patients' <u>last</u> 1986 admissions were to other hospitals.

These cases are:

[redacted] 9-22-86 Dism. 9-26-86 (transferred)
6-18-86 Dism. 6-27-86 (transferred)

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in the analysis. However, Clarkson Hospital is well within the "Range of Predicted Mortality Rates" as determined by HCFA in all categories. It should also be noted that the ranges for each hospital are different. The Actual Mortality Rate for Clarkson Hospital for "All Cases" is 10%, according to the method determined by HCFA. We find it interesting to note that, while this too falls within the "range," the method of computing this rate is not that of the nationally-accepted method of computing the Gross Mortality Rate of a hospital. When using the nationally-accepted method of Medicare deaths (316 in hospital) divided by all Medicare discharges and deaths for the period (5881 patients), the Actual Mortality Rate for Clarkson Hospital falls from 10% to 5%! We feel this is extremely low in view of the fact that the average age of this group of patients is 75.5 years and the fact that, historically, these patients are very ill.

Our internal statistics continue to indicate that Clarkson Hospital excels in the treatment of Medicare patients with severe multi-system diseases. These internal statistics indicate a 95% positive treatment factor for Medicare patients with severe illnesses.

D. Max Francis
Chief Executive Office
10-23-87

2. Discharge date was erroneous in the following cases:

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[redacted] 10/19/86 Exp. 10/24/86 while still hospitalized, not 10/29/86 as listed.

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Our internal statistics continue to indicate that Clarkson Hospital excels in the treatment of Medicare patients with severe multi-system diseases. These internal statistics indicate a 95% positive treatment factor for Medicare patients with severe illnesses.

D. Max Francis
Chief Executive Office
10-23-87

COLUMBUS COMMUNITY HOSPITAL, INC.

3111 19th Street
Columbus, Nebraska 68601
Phone: (402) 564-7118

October 22, 1987

COLUMBUS COMMUNITY HOSPITAL
COLUMBUS, NE
RESPONSE TO MORTALITY DATA
PROVIDOR #280111

Response to Accuracy of Data

1. One patient had wrong date of death.
2. Two ages reported wrong.
3. One principal diagnosis listed as CVA (436) and was hyperkalemia (276.7), changes actual mortality rate from 52% to 48%.
4. One patient was never a patient at Columbus Community Hospital.

Attached is the data excluding patients who did not die in our institution.

Comments Regarding Diagnostic Categories

CA (Cancer) All patients had advanced terminal cancer. Treatment sources were exhausted. Death was inevitable and expected. Average age of death 76.9.

CE (Cerebrovascular Accidents) One reported incorrectly. Patient's principal diagnosis was hyperkalemia and case of death was congestive heart failure. CVA is considered a high risk diagnosis by HCFA. Average age of death 79.

GC (Gastrointestinal Catastrophes) Two patients, one subsequently suffered a heart attack and family requested no code. The other patient subsequently was found to have cancer involvement of two organs. Average age of death 75.5.

GI (Gastrointestinal Disease) Average age of death 76.

HM (Severe Chronic Heart Disease) One patient was never admitted to this hospital, has same patient ID number as patient listed below. Average age of death 80.2.

HL (Low Risk Heart Disease) Average age of death 95.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

HS (Severe Acute Heart Disease) Three families of patients had requested a No Code. Average age 76.3.

OP (Orthopedic Disorders) Principal diagnosis is recorded correctly, but the diagnosis does not relate to this category.

PN (Pulmonary Disease) Average age of death 76.1.

SE (Sepsis) Average age of death 81.

TR (Severe Trauma) Cause of death was not related to the principal diagnosis. Average age of death 79.

The three highest diagnostic categories which show our hospital on the upper percent of predicted mortality rates are cancer, CVA and severe acute heart disease. All are diseases that are found with advanced age. Platte County has one of the highest incidences of colon cancer and heart disease in the nation and also has a higher percentage of the elderly population. Average age 77.7 years of those that died. 1986 data states the overall average age at the time of death in the State of Nebraska was 72.8.

Sincerely,

Donald H. Zornes

Donald Zornes,
Administrator
Columbus Community Hospital
Columbus, Ne.

Community Hospital

1301 EAST H STREET
McCOOK, NEBRASKA 69001

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

This letter represents the comments of Community Hospital, McCook, Nebraska to your letter of September 21, 1987 regarding the announcement of the Health Care Financing Administration (HCFA) plans to publish selected mortality information in December 1987.

Data Verification

The data used by HCFA indicates a total of 60 Medicare patients admitted to Community Hospital died within 30 days of discharge. Of these, 50 died while still a patient of the hospital while 10 died after discharge. Our own records indicate that 830 Medicare admissions, 724 acute and 106 swing bed, occurred in 1986 compared to 474 according to HCFA. Presumably, the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals, as well as multiple admissions to Community Hospital. We have no way of verifying whether the number of Medicare patients treated at Community Hospital is correct. It is also impossible to determine the cause of death of the 10 patients who died after discharge.

Without detailed information concerning the billing data available to HCFA in computing the predicted mortality rate, it is impossible to verify the accuracy of the diagnostic or other data used in your analysis.

A corrected list which includes several changes, ie, name, patient ID number, age, and date of death is included with these comments, attachment #1.

Interpretive Remarks

In four of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of predicted mortality. Two of these are lower than the predicted and two are higher than the predicted.

Unique Services Resulting in Higher than Average Mortality

Community Hospital is a rural acute care hospital with skilled swing beds as a service to our patients. The nearest skilled nursing facility is located approximately 70 miles away. Instead of patients dying in area nursing homes or their own private homes, they are admitted to Community Hospital for any possible terminal care and death. Also, patients are sent to Community Hospital from large medical centers after major treatment to die close to home. Our patients' high average age is also a factor in the mortality rate. It is recognized by HCFA the Community Hospital case mix index has increased over 30 percent since the inception of PPS. This shows the severity of the patients' illnesses being treated has also increased.

Results of Preliminary Medicare Record Review

The two diagnostic categories which are higher than the HCFA predicted mortality rate for Community hospital, cerebrovascular accidents (CVA) and severe acute heart disease were reviewed by the members of the Medical Staff. After review, it is felt that in one case in each category the principal diagnosis was incorrectly coded.

In one case, the 84 year old patient was admitted from the nursing home with seizures secondary to an old CVA eight months prior to admission. The principal diagnosis was recorded as such and an acute CVA code, 436, was given rather than seizures due to old CVA, 780.3 and 438. The seizures were treated and the patient was discharged back to the nursing home six days later, and subsequently expired ten days after discharge.

In the other case, the patient was admitted in a corpse-like condition. The extremities were cold and the patients was cyanotic. The blood sugar was 9 on admission and the blood gases showed a pH of 6.88, both very low values. The patient expired approximately 5 hours after admission and a principal diagnosis of cardiovascular collapse was given.

In all other cases, the deaths were expected on admission or there was a significant possibility death would occur. In most cases, a "No Code" order was written on the charts by the physicians with family consultation and approval.

If the principal diagnoses in these two cases would have been coded correctly, the mortality rates in the two over the expected mortality rates would be changed. The cerebrovascular accident (CVA) would be 58%, predicted 9 to 56%. The severe acute heart disease would be 67%, predicted 17 to 68%.

Sincerely,

Gary Bieganski
President

GB/ns

attachments

Attachment #1

HOSPITAL ID NUMBER - 280021

PATIENT ID NUMBER	SURNAME	DIAGNOSTIC CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH	PRINCIPAL DIAGNOSIS	PRINCIPAL PROCEDURE
[redacted]	[redacted]	CA	073	M	09/26/86	10/02/86	10/02/86	1976	SNF
[redacted]	[redacted]	CA	087	F	09/09/86	09/11/86	09/11/86	1985	SNF
[redacted]	[redacted]	GC	090	F	03/03/86	03/24/86	03/24/86	56089	4603
[redacted]	[redacted]	HM	077	F	05/27/86	05/28/86	05/28/86	4280	
[redacted]	[redacted]	HS	082	M	03/04/86	03/04/86	03/04/86 (03/11/86)	78551	
[redacted]	[redacted]	HS	070	F	03/03/86	03/03/86	03/03/86	4101	
[redacted]	[redacted]	HS	091	F	07/06086	07/07/86	07/06/86	4101	
[redacted]	[redacted]	ME	089	F	06/20/86	06/25/86	06/28/86	2765	
[redacted]	[redacted]	OP	072	M	05/06/86	05/27/86	05/27/86	73342	8159
[redacted]	[redacted]	PN	089	F	08/02/86	08/06/86	08/06/86	486	
[redacted]	[redacted]	RN	069	F	08/11/86	08/19/86	08/19/86	SNF	
[redacted]	[redacted]	SE	082	M	12/11/86	12/12/86	12/12/86	0381	8848
[redacted]	[redacted]	UN	076	F	02/03/86	02/07/86	02/07/86	7991	

* HCFA incorrect information in parentheses

NE 26.2

Community Hospital Inc.

VICTOR LEE, ADMINISTRATOR 2307 BARADA STREET FALLS CITY, NEBRASKA 68355 PHONE 402-245-2428

October 20, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland

Dear Sirs:

This letter is in response to the recent mailings containing the Health Care Financing Administration mortality information for short term acute hospitals.

There are three patients that have incorrect dates listed that I would like to denote. Patient with ID# [redacted] has an incorrect date of discharge and date of death. The date of discharge is listed as December 12 and should be December 23. Date of death is listed as December 22 and should be December 23. Patient #[redacted] has a date of death listed as November 30 and it should be November 14. Patient # [redacted] has a date of discharge listed as November 15 and it should be November 17.

There are some further correctons that I will also address. Of the list of patients identified as dying in our facility, seven of them died after discharge. Four of these patients died at home. They included patient # [redacted] # [redacted] # [redacted], and # [redacted] Two patients died after being discharged back to the respective nursing homes. These included patient # [redacted] and # [redacted] One other patient died after being transferred to another facility. This patient was # [redacted] In reviewing these patient's records, it was found that all had complicated diagnoses, were aged, and all experienced comorbidity.

Community Hospital, Inc. is a forty-nine bed rural facility with its patient census consisting of approximately 60% Medicare patients. In reviewing the list of Medicare patients who died within thirty days of their admission during 1986, all but two patients were over the age of 60 with the mean age of 81.9. With this type of population base, it is expected that rural facilities such as Community Hospital will experience high mortality rates, especially in such diagnostic categories as cerebrovascular accidents, severe chronic heart disease and severe acute heart disease.

After conducting this mortality review, I feel confident that our rate is the result of the patients that we treat, not the way we treat our patients.

Sincerely,

Victor Lee, Administrator

VL:llj

COMMUNITY MEMORIAL HOSPITAL, INC.

A Community Non-Profit Hospital

BURWELL, NEBRASKA 68823

October 12, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

In reference to the mortality information sent to us by your administration recently. Our community has a high concentration of older retired residents. The only death under 70 was a mentally retarded individual who also had other multiple problems, including insulin dependent diabetes mellitus.

The majority of deaths noted on the survey occurred in the hospital after a short stay. The 100% cancer death rate occurred in terminally ill patients.

The one sepsis death also occurred in a patient with terminal cancer.

In conclusion, this would appear to be an expected outcome.

Sincerely,

Thelma Pfeiffer, administrator

TP:bjm

COZAD COMMUNITY HOSPITAL
P.O. BOX 108
COZAD, NEBRASKA
69130

Provider #: 28-0070

October 12, 1987

Health Care Financing Administration
Heatlh Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

I am enclosing the list of patients you sent us with corrections in dates listed beside the incorrect dates.

When comparing your statistics against ours, I find some discrepancies. My main concern was the categories in which we have a 100% mortality rate. I checked to make sure our CVA's and MI's were principal diagnoses. In some of the other categories, there may be a few patients included with a diagnosis that fell in the category, but it may not be the patient's principal diagnosis. My results are as follows:

CATEGORY	# PATIENTS
CA	12
CE	7
GC	6
GI	34
GU	9
HL	25
HM	17
HS	15
ME	9
OP	24
PN	38
RN	3
SE	1
TR	10
TOTAL	210

There were 30 mortalities within 30 days of admission to our hospital. Twenty-three of these occurred while the patient was still in our facility. We have an ongoing monthly review of all mortality cases in our hospital, and there weren't any unusual findings regarding the mortalities during the meetings in 1986.

We have Swing Beds which keeps a patient here longer. We also have a large number of Medicare-aged citizens in our community. We see cases of terminal COPD and CHF and the patients usually come to the hospital during their illness right before they die. Your figures do not reflect that we send quite a few people home after a CVA or MI. These were categories in which our mortality rate was 100%. According to my figures, we had 7 cases in the CE category and 15 cases in the HS category. These differ considerably from your figures.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

To be fair, I feel the mortality figures should be figured on all patients seen in our facility. By addressing only the Medicare patients you are ignoring the younger, and sometimes stronger, patients. We may admit a Medicare patient who comes to the Emergency Room or from the physician's office with a poor prognosis. But we must admit the patient because they need to be hospitalized.

I don't feel you are addressing a quality of care concern just by publishing a mortality study. There are many variables that need to be considered before a study is made public.

Sincerely yours,

Nancy J Bilslend, ART

Nancy J. Bilslend, ART
Director of Medical Records



DOUGLAS COUNTY HOSPITAL

4102 WOOLWORTH AVENUE, OMAHA, NE 68105 TELEPHONE (402) 444-7000

HELEN BERGSTROM, R.N., N.H.A.
ADMINISTRATOR

October 28, 1987

Medicare Provider
No. 28-0010

William L. Roper, M.D.
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C.

Dear Dr. Roper:

In regard to the recent mortality information concerning Douglas County Hospital, I would like to state the following facts:

Douglas County Hospital is a 272 bed Skilled Long Term Care facility with 30 Acute Medical beds and 27 Acute Psychiatric beds. The admissions to our acute medical unit are from 2 sources.

1) when our Skilled residents become acutely ill they are transferred to the 30 bed Acute Medical unit,
2) Douglas County has an indigent program and clients who need medical care are admitted from our Clinic and other hospitals.

In reviewing the list we feel Patient No. [redacted] is classified incorrectly. The death certificate states cause of death as metastatic cancer of the colon.

Three patients (Nos. [redacted] were admitted from another facility and expired in our facility within an average of 2 weeks.

The 63 pulmonary disease cases were patients who were in our Skilled facility for years and they had multiple diagnoses that required 24 hour licensed nurse supervision prior to developing a pneumonia.

The average of those patients who expired is 78. The majority of them died in a short period of time after being transferred to our Acute Medical unit and they had been residents in our Long Term Care Skilled facility for a long period of time.

Sincerely,

Helen Bergstrom

Helen Bergstrom
Administrator

bh

COUNTY BOARD OF COMMISSIONERS

MICHAEL L. ALBERT WILLIAM "BILL" GREEN MICHAEL KELLEY STEVE McCOLLISTER STEVE ROSENBLATT

DUNDY COUNTY HOSPITAL
North Cheyenne
P.O. Box 626
Switchboard — 308-423-2204 Benkelman, Nebraska 69021 Business Office — 308-423-2670

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

October 29, 1987

Dear Sirs:

Dundy County Hospital, provider number 280082 would like to note the following errors on the attached 1986 mortality data:

1. Patient ID number [redacted] should be [redacted].
2. Patient ID number [redacted] should be [redacted].
3. Patient ID number [redacted] should be [redacted]
4. Patient ID number [redacted] should be [redacted]
5. The age on patient [redacted] should be 86, not 87.
6. The date of death on patient [redacted] should be 6-22-86 not 5-31-86.

All other information, although of questionable statistical validity and usefulness, is correct.

Very Truly Yours,

Daniel L. Dennis
Administrator

DLD/mek

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

COMMENTS ON THE MORTALITY DATA - HCFA

Franklin County Memorial Hospital
Franklin, Nebraska

Data Verification

The data used by HCFA indicates that a total of 17 Medicare Patients admitted to the Franklin County Memorial Hospital died within 30 days of admission. Of these, 15 expired while still a patient of the Hospital, while 2 expired after discharge. Our own records indicate that a total of 20 Medicare Patients expired including an additional two in the Hospital and 1 post discharge. Without more complete data concerning how HCFA arrived at their numbers, it is impossible to determine the reason for this possible descrepancy. It is further difficult to determine what impact these additions might have to our listings.

Interpretive Remarks

In 1 of the diagnostic categories, the Hospital's actual mortality rate falls outside the range of the "predicted mortality rate".

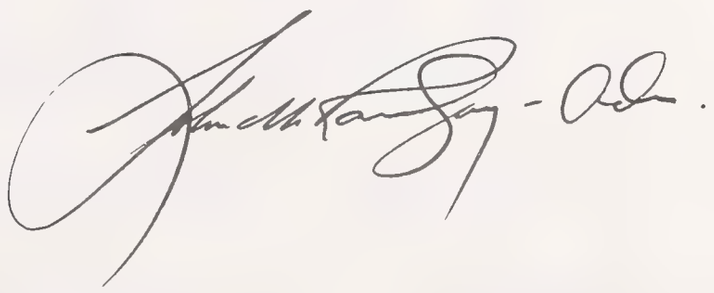
The use of this category in which only one (1) patient is included may lead to an erroneous conclusion of signifigance. (See Preliminary Record Review)

After correcting for potential errors, it would not seem that significant change would occur in the analysis part of your report. The addition of three patients' deaths, each in a different category, would change some numbers, but we would not expect these would cause any other categories to be put beyond the "predicted range".

Results of Preliminary Medicare Record Review

Within the category cited as falling outside the predicted range, one patient served as the total sample. The patient was "end stage" and refused further dialysis or any further treatment efforts. The outcome, therefore was expected once the diagnosis was arrived at and confirmed with the patient.

The Hospital Pathology and Quality Assurance Team have reviewed the deaths and in all but one case, the outcome was expected or was a significant possibility. In the one other case, once the diagnosis was arrived at (which was different than the one for admission), the outcome was expected.



The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA		Deaths Verified by Hospital*	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer			1	
CE -- Cerebrovascular Accidents	1		1	
GC -- Gastrointestinal Catastrophes	1		1	
GI -- Gastrointestinal Disease				
GU -- Urologic Disease	1		1	
GY -- Gynecologic Disease				
HL -- Low Risk Heart Disease				1
HM -- Severe Chronic Heart Disease	2		2	
HS -- Severe Acute Heart Disease	4		4	
ME -- Metabolic/Electrolyte Disturbances		1		1
OP -- Orthopedic Disorders				
PN -- Pulmonary Disease	3		4	
RN -- Renal Disease	1		1	
SE -- Sepsis				
TR -- Severe Trauma				
OP -- Ophthalmalogic Disease				
UN -- Other Diagnoses	2	1	2	1
Total -- All Categories	15	2	17	3

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

GENOA COMMUNITY HOSPITAL
706 Ewing Avenue
993-2283
Genoa, Nebraska 68640
October 26, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

I sincerely feel the use of percentages when the case volume is low gives a distorted perspective.

Sincerely,

Suzanne Hasselbalch

Suzanne Hasselbalch
Administrator

Good Samaritan Hospital

31st and Central Avenue
P.O. Box 1990
Kearney, NE 68848 - 1990
Telephone (308) 236-8511

Sisters of Saint Francis

October 26, 1987

William L. Roper, M.D., Administrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

I am writing in regard to your letter of September 21, 1987 in order to provide comments concerning the mortality information about Medicare patients treated at Good Samaritan Hospital in 1986 which were enclosed with your letter.

Good Samaritan Hospital (GSH) is a 177 bed acute care hospital located in south central Nebraska. It has been designated a rural referral center by the Department of Health and Human Services and provides a broad range of services, including a complete cancer program, inpatient and outpatient hemodialysis, neonatal intensive care, complete diagnostic radiology including CT scanning, ultrasound, nuclear medicine studies and mammography, complete cardiopulmonary services including outreach computerized EKG, 2D echocardiography, pulmonary function studies and outreach Holter monitor/scanning, Home Health services in four counties, regional reference laboratory services for area hospitals and physicians' offices, regional emergency air transport services (helicopter and fixed wing), Hospice and neurosurgery. Good Samaritan Hospital is the largest hospital in terms of admissions in central Nebraska and 60% of its outpatients and over 50% of its inpatients come from outside Buffalo County, the county in which the city of Kearney is located.

We would expect to have a higher mortality rate at Good Samaritan Hospital than at many other hospitals due to the fact that we are a regional referral center and we do offer the aforementioned programs. Over half of our patients are referred from outside the county and many are transferred in from outlying acute care hospitals. Another factor to consider is the fact that the average age of our Medicare patients listed in the HCFA mortality statistics is 78.2 years of age. Considering our status as a referral hospital and the other aforementioned facts, death would be an expected outcome at the time of many of these patients' admission or discharge from the hospital.

According to the statistics received from HCFA, Good Samaritan Hospital was one percentage point over the range of predicted mortality rates for patients with severe, acute heart disease. We would like to point out that of these 26 patients who expired, 14 were from outside Buffalo County. Of these 14 patients, 3 were from Kearney County, 1 from Harlan County, 1 from Frontier County, 1 from Sherman County, 1 from Keith County, 1 from Red Willow County, 1 from Furnas County, 1 from Dawson County, 2 are from the state of Kansas, 1 from the state of Mississippi and 1 from the state of Arizona. Also, 7 of these 26 patients were transferred to our hospital from other acute care hospitals. Again, as a referral center, these patients are more severely ill and death would have to be an expected outcome in some of the patients.

We also noticed that 3 of the 25 patients who expired after discharge from Good Samaritan Hospital were transferred from Good Samaritan Hospital to other acute hospitals. It would seem that these patients should be reflected in the statistics of the hospital to which the patient was transferred and possibly already are, which would mean that some deaths are being counted against more than one hospital. We were unable to follow up with these three hospitals to find out if indeed these patients were counted in their death statistics.

In summary, we really feel that more work needs to be done to produce meaningful and accurate statistics. For example, we disagree with your methodology of only utilizing a patient's final admission site for a statistical basis. If a patient is hospitalized six times during the year, we feel that those admissions should be included in our data base. Also, counting only the final admission to the hospital distorts the data in that patients who are transferred to referral centers such as ours may literally be on the brink of death. These statistics certainly do not reflect the quality of care given at the referring hospital but instead is counted in the statistics of the receiving hospital.

Good Samaritan Hospital would be more than happy to assist you by providing you with our own data in order to ensure that the information is definitely accurate and up-to-date. We feel that your data base is probably missing a large number of patients due to a delay in transmission of claims information from both Blue Cross-Blue Shield, our fiscal intermediary, and the Sunderbruch Corporation-Nebraska, the Nebraska PRO. This would certainly make a difference in the actual mortality rates.

We would like to thank you for providing us this opportunity to give you our comments.

Sincerely,

LeRoy Rheault

LeRoy E. Rheault, President
Good Samaritan Hospital
Medicare Provider #28-0009

GOTHENBURG MEMORIAL HOSPITAL
910 20TH STREET P.O. BOX 469
GOTHENBURG, NEBR. 69138-0652
TELEPHONE: 308-537-3661

October 16, 1987

William L. Roper, M.D.
Administrator
Department of Health & Human Services
Health Care Finance Administration
Washington, D. C. 20201

Dear Doctor Roper:

We have had an opportunity to review your September 21, 1987, Letter and the Medicare mortality information that accompanied that letter. Technically, the detail you submitted to us was correct. For example, we did have one, elderly Medicare patient who passed away following an extended stay in our hospital. This means that we had a 100% "actual mortality rate" for this particular diagnostic category. The "range of predicted mortality rate" for this diagnostic category is 1 to 97%. At the other extreme, we had a 0% actual mortality rate for another diagnostic category where the range of predicted mortality rates is 1 to 81%. What does this all mean? It means nothing except to underscore a statement that you made that there are "uncertainties associated with the calculation of mortality rates" (emphasis added).

To say, as you did in your letter, that the information would "offer hospitals insight into the results of patient care not previously available" is a bunch of malarkay. Our quality of care standards, developed and maintained by our Governing Board, Medical Staff, and Hospital Employees are already in place, and certainly have not been and will not be enhanced by the dissemination of these statistics.

Sincerely,

Roger Heidebrink,
Administrator

Medicare Provider Number: 28-0108

rh/sm

"An Equal Opportunity Employer"

NE 44

HENDERSON COMMUNITY HOSPITAL
& Nursing Home

PHONE 402-723-4512 BOX 217 HENDERSON, NEBRASKA 68371

October 15, 1987

William L. Roper,M.D.
Administrator
Department of Health & Human Services
Health Care Financing Administration
Washington, D.C. 20201

Re: 1986 Mortality Report
Medicare Provider #28-0029

Dear Dr. Roper:

Henderson Community Hospital has reviewed the six patients reported as Medicare admissions who died within 30 days of their last admission in 1986. Our review indicates the following:

1) These all were our patients.
2) The dates of admission, discharge, and death are correct.
3) Our hospital was the last hospital the patient was admitted to.
4) All the patients died in the hospital.

In furthur review concerning concerns over whether the patient was characteristic of patients with the same diagnosis/disease, whether the death was related to any care the patient received or did not receive while under our care, whether pre-existing conditions were present or if these compromised other problems; I offer the following comments.

Pt. [redacted]. Patient was treated for his CVA and cardiac arrhythmias but his condition deteriorated inspite of all the correct medical treatment he received. Patient was already unresponsive on second day of admission and his cardiac arrhythmia, through properly treated, and respiratory failure caused his condition to fail rapidly. Death was imminent. Past complications were a CVA in 1983.

Pt. [redacted] Patient entered the hospital for observation as an 85 year old white female debilitated severely by arthritis, from a nursing home facility. She was given immediate palliative treatment for vomiting by insertion of a naso-gastric tube and hydration. She rallied some and the clinical symptoms were not conclusive at this point, but then the patients abdomen became more distended and bowel sounds became markedly decreased. Surgical consult was arranged, but patient was an extremely poor surgical risk. Patient died before a surgical intervention could be accomplished.

Pt. [redacted] Patient died in spite of all efforts to revive him within an hour from admission. Diagnosis was a acute myocardial infarction. His pulse gradually slowed from initial admission

HENDERSON COMMUNITY HOSPITAL
& Nursing Home

PHONE 402-723-4512 BOX 217 HENDERSON, NEBRASKA 68371

and he was given intravenous atropine without effect. Patient was defibrillated for episodes of ventricular fibulation, intubated, bagged, and medicated throughout the code. All efforts were unsuccessful. Past history included coronary artery disease.

Pt. [redacted] Patient was a 72 year old admitted from a nursing home in a lethargic, unresponsive state with respiratory distress. Patient has a history of congestive heart failure and he had been on antibiotic therapy without improvement. Patient was properly treated for his radiographically diagnosed pneumonia with antibiotics, fluids, and oxygen. Patient rested somewhat easier during the evening and then expired quietly while at rest during the night.

Pt. [redacted] This 83 year old patient was admitted after a history of chronic illness with many debilitating illnesses. The appropriate medications were given the patient with only minimal response. His condition was compromised by other problems and we believe her care was appropriate.

All the deaths were reviewed by the Medical Staff and Consultant Physicians without comment. Appropriate care and treatment was felt administered in all cases.

As regards your second report concerning percentage of mortality by specific diagnostic category; Henderson Community Hospital had only one category that was not within predicted mortality rates.

GC- Gastrointestional Catastrophies 100% Predicted Range 0-98%.

The Henderson Community Hospital would respond to the public with the statement, we had only ONE patient with this diagnosis and she died. This statistic is not valid! Neither should it be of any importance to the public.

I thank you for the opportunity to respond before printing of this information. A recommendation I have is that you establish some minimum number of cases before a category is computed. Perhaps use 5 or more cases as a minimum before computing any percentages.

Sincerely

Jerrell F. Gerdes
Administrator

Addendum Attached (1)

HENDERSON COMMUNITY HOSPITAL

& Nursing Home

PHONE 402-723-4512 BOX 217 HENDERSON, NEBRASKA 68371

October 15, 1987
Provider # 28-0029

ADDENDUM ATTACHMENT FOR PATIENT [redacted] not included in the document attached.

This 74 year old female was admitted for possible subendocardial injury and placed on cardiac care. Patient had a history of asthma with a lot of shortness of breath. The monitor showed SR but the patients blood pressure dropped and she became more short of breath during the stay. Radiological studies did not indicate pulmonary infiltrate and no acute changes from a study on 4-86. Patient did have peripheral edema that increased during stay.



Howard County Community Hospital

1102 Kendall Street

Telephone 754-4421

St. Paul, Nebraska 68873

MEDICARE I.D. # 280084

October 19, 1987

William L. Roper, M.D.
Health Care Financing Administration
Health Standards & Quality Bureau
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

I would first like to commend you and your department for considerably improving the Mortality Information as compared to the 1985 Mortality Rate. The greater sophistication, detailed information and advance notice are greatly appreciated. I also appreciate the opportunity to comment along with the publication of our hospital's mortality rates.

In spite of the considerable improvement, the current year Mortality Rates are far from satisfactory as a tool to determine quality of care in a hospital. Until your department developes an accurate system of classifying severity of illness, such publicized information is significantly misleading. Such a yardstick to measure severity of illness is also woefully needed so that reimbursement for Medicare aptients in hospitals can be reasonably established.

Because your department has not addressed the severity of illness and for amny of the factors listed below, I believe the printing of the Mortality Rates for our hospital to be misleading and of little value to the general public. For this reason, I am urging you not to publicize the Mortality Rates for our hospital and based upon how they are publicized and upon what action the Peer Review Organization may take, we may take legal action to vindicate our hospital.

Other than severity of illness, the greatest failure of the Mortality Rates as they apply to our hospital, is the fact that no consideration is given to the large number of patients admitted to our Swing Bed Program. We believe our hospital to be the largest (based upon patient days) Swing Bed Program in the State of Nebraska. At least in our area, many of the patients admitted to Swing Bed programs are hospice type patients. That is, their prognosis is very limited. IN SPITE OF THE FACT THAT OUR HOSPITAL'S MORTALITY RATE WAS ONLY 1% GREATER THAN THE "PREDICTED MORTALITY RATE", NEARLY 100% OF THE 40 LISTED DEATHS WERE CASES WHICH EITHER THE PATIENT OR THEIR FAMILY AND RELATIVES REQUESTED THAT NO EXTRAORDINARY, LIFESAVING MEASURES BE TAKEN TO REVERSE AN IRREV OCABLE CONSEQUENCE. IN OTHER WORDS, WE WERE PREVENTED, DUE TO FAMILY WISHES (AND I BELIEVE WISELY) FROM "SAVING LIVES".

It should be noted that our hospital deaths fell within the "range of predicted mortality rates" in all categories except severe trauma. In that category, you predicted a mortality rate of somewhere between 0-99%. Such vagueness renders the outcome insignificant. Though we had one patient that did die, we were classified as over the predicted rate. On such a small volume (one admission), the classification is meaningless.

I believe that the average lay reader may review your mortality list and assume that the predicted mortality percent represents percentage of cases entering the hospital. One of our patients was admitted six different times during 1986 before passing away. If the death rate was based upon admissions, at least to our hospital, the percent would be 17%.

It should also be noted that of the Medicare patients that died, identified on HCFA's list, the average age computes out to 86 year old. 80% of the deaths were patients 80 years or older. 32.5% were age 90 years or older. 35% of those deceased were Swing Bed patients.

Even though our hospital was only 1% above the "range of predicted mortality rate", we deeply resent any inference that quality of care extended at our hospital is anything less than excellent. It should be noted that only two patients admitted to our hospital (excluding Medicare patients) died during 1986.

Sincerely,

Russell W. Swigart
Administrator

P.S. This following information may or may not be published. The only error that we noted in the information submitted on our hospital was Patient I.D. # [redacted] Your records indicated death on 4-13-87 and our records indicate the death to have occurred on 4-03-87.

Immanuel Medical Center

6901 North 72nd Street • Omaha, Nebraska 68122 • Phone 402/572-2121

Immanuel Centennial 1887-1987

October 26, 1987

Charles J. Marr, FACHE
President and
Chief Executive Officer

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

COMMENTS ON THE HCFA MORTALITY DATA
MEDICARE PROVIDER NUMBER: 280081

Data Verification

Our records indicate the total number of Medicare admissions at Immanuel Medical Center for 1986 was 3,221. The data used by HCFA indicates that 212 of these Medicare patients admitted to Immanuel Medical Center died within 30 days of admission. The report indicates that of these 212 deaths, 159 died while still a patient of the hospital and 53 died after discharge. Upon our review of the patient's medical records, we show that 163 died while still an inpatient with 49 dying after discharge. One patient, the report indicates, died while at the hospital, however, the patient was discharged alive. Of the 49 who died after discharge, it is impossible to determine the percentage of those still alive, as information concerning death after discharge is not included in the patient's medical record.

Results of Preliminary Medical Record Review

Please see attached report for the list of corrections.

The last hospitalization of 1986 for 2 patients technically was at a hospital outside the Medicare system. Both patients were transferred to the Veteran's Administration hospital and expired there.

Seven of the patients were admitted in 1985 and expired in 1986. Also, 2 patients were admitted in 1986 and expired in 1987. Treatment of these patients occurred during both years, however, we would like to know if the deaths will be reflected in the year the patient is admitted. If so, then the 7 admitted in 1985 should be reflected in the 1985 mortality statistics and the 1986 statistics should be corrected with a copy of these corrections sent back to our facility. It is important to know your policy in this matter so that patients whose treatment covers 2 different years, their deaths are not counted twice in HCFA's mortality statistics.

Sincerely,

Steven J. Fish
Vice President

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA In-hospital	Deaths Reported by HCFA Post-hospital	Deaths Verified by Hospital In-hospital	Deaths Verified by Hospital Post-hospital
CA -- Cancer	35	10	37	8
CE -- Cerebrovascular Accidents	12	2	12	2
GC -- Gastrointestinal Catastrophes	4	1	4	1
GI -- Gastrointestinal Disease	4	3	4	3
GU -- Urologic Disease	2	1	2	1
GY -- Gynecologic Disease	0	0	0	0
HL -- Low Risk Heart Disease	7	4	8	3
HM -- Severe Chronic Heart Disease	12	6	12	6
HS -- Severe Acute Heart Disease	24	0	24	0
ME -- Metabolic/Electrolyte Disturbances	4	5	4	5
OP -- Orthopedic Disorders	2	1	2	1
PN -- Pulmonary Disease	18	3	19	2
RN -- Renal Disease	2	0	2	0
SE -- Sepsis	5	0	5	0
TR -- Severe Trauma	3	2	3	2
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	25	15	27	13
Total -- All Categories	159	53	163	49

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

HIC NUMBER	SURNAME	DIAG. CAT.	SEX	DATE ADM	DATE DSM	DATE OF DEATH
[redacted]		CA	M	10/01/86	10/03/86	10/14/86
[redacted]		HL	F	02/26/86	02/27/86	02/27/86
[redacted]		PN	F	07/17/86	07/28/86	07/28/86
[redacted]		UN	F	09/17/86	09/20/86	09/20/86
[redacted]		UN	F	01/25/86	03/07/86	??
[redacted]		UN	M	07/05/86	07/13/86	07/13/86
[redacted]		UN	F	07/14/86	07/25/86	07/27/86
[redacted]		UN	F	03/26/86	04/02/86	04/02/86
[redacted]		CA	M	10/26/86	11/08/86	11/08/86

* Patient was alive at discharge (3-07-86).

The dates highlighted in yellow are the corrections we are submitting.

Following patients expired at the VA hospital:

[redacted]	CA	M	10/01/86	10/03/86	10/14/86
[redacted]	UN	M	12/22/86	12/22/86	01/01/87

KEARNEY COUNTY COMMUNITY HOSPITAL

727 East First Street

MINDEN, NEBRASKA 68959

Medicare Provider # 28-0022

October 12, 1987

COMMENTS ON THE HCFA MORTALITY DATA
Kearney County Community Hospital, Minden, Nebraska

Data Verification

HCFA's data show 124 Medicare admissions in 1986 while Kearney County Community Hospital's records show 213. The data used by HCFA indicates that a total of 17 Medicare patients admitted to Kearney County Community Hospital died within 30 days of admission. Of these, HCFA shows that 14 died while still a patient of the hospital, while 3 died after discharge. Our own records indicate that of the 17 Medicare patients who died within 30 days of admission, 2 were still alive at the time of discharge.

In reviewing the data received from HCFA, the following errors were identified: one patient in the HM category died after being transferred to an Intermiediate Care Nursing Home instead of in the hospital's Skilled Nursing Swing Bed Unit. One patient, in the PN category died on 2-2-86, the date of discharge, instead of on 2-13-86. Another patient in the UN category, died on 4-29-86, instead of on 4-30-86. These erros did not change the mortality rates calculated by the HCFA.

Interpretive Remarks

The records of the 17 Medicare patients admitted to Kearney County Community Hospital who died within 30 days of admission, were reviewed. It was found that of the mortalities in the CA group, death was the expected outcome for all three patients. In the CE group, death was the expected outcome for two of the patients, and was a significant possibility for the third patient. In the HM group, death was a significant possibility for all three patients who died. In the HS group, death was the expected outcome for one of the patients and death was a significant possibility for the other patient. In the PN group, death was the expected outcome for two of the patients and a significant possibility for the other two. In the RN group, the one patient who was treated died. Death was a significant possibility for this patient and the prognosis was poor. In the UN group, the one patient who was treated died. This patient's expected outcome was death.
In reviewing all 17 Medicare deaths, no problems in the quality of care were identified.

In all 4 of the diagnostic categories, the hospital's actual mortality rate falls outside of the range of the predicted mortality rate. The factor which accounts for this difference is the relatively small number of patients treated in these categories. In 3 of the 4 categories, there were no deaths which brought the mortality rates below the predicted ranges of 0%. In the 4th category, the one patient who was treated, died. This brought the actual mortality rate to 100%. In this category, the range of predicted mortality rates in 0 to 97%. No problems regarding this patient's treatment were identified.

Lundberg Memorial Hospital

P.O. Box 186
Creighton, Nebraska 68729
(402) 358-3322

October 22, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, MD 21207

Dear Dr. Roper:

I wish to provide brief comment on behalf of Lundberg Memorial Hospital, Creighton, Nebraska, No. 280046 concerning mortality information to be published.

All information for this hospital has been thoroughly reviewed and is correct.

One concern I have with this type of statistic is that a small hospital may have very limited numbers in a certain diagnosis and even one death can cause a high percentage when generating mortality rates. An example for this hospital would be the one patient with Renal Disease who expired, therefore giving us a 100% Mortality Rate. Two other categories had two cases with one expiring, giving a mortality rate of 50%.

Those statistics based on small numbers could be potentially damaging to the small hospital trying to survive if the general public interprets the information incorrectly.

Sincerely,

Vernon Minnis

Vernon Minnis
Administrator

VM/ldb

LUTHERAN COMMUNITY HOSPITAL
BOX 869
2700 NORFOLK AVENUE
NORFOLK, NEBRASKA 68701
(402) 371-4880

October 7, 1987

Healthcare Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

RE: Comments on HCFA Mortality Data
from Lutheran Community Hospital (ID no.-280034)

The listing provided to Lutheran Community Hospital indicates 81 Medicare patients who died as a patient or within 30 days after discharge, with 21 of the patients falling into the latter category. We found the listing to be accurate except for minor age differences in two patients.

Although we were not able to determine the cause of death in all of the 21 who died after discharge we did find, through physicians offices, that 6 of the 21 died of causes unrelated to the reason for the last hospitalization at our hospital. 3 of those were in the GC (Gastrointestinal catastrophe) category, 1 in the GI (Gastrointestinal disease) category, 1 in HM (Severe chronic heart disease), and 1 in ME (Metabolic and electrolyte) categories.

While mortality data is an important part of quality reviews, it should be remembered that it is only one of the many indicators which assist hospitals and their medical staffs in evaluating patient care.

Sincerely,

Daryl Mackender
Administrator

dk

Lutheran
Medical
Center

October 26, 1987

Dr. William L. Roper
Administrator
Dept. of Health & Human Services
Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

RE: Medicare Provider
No. 28-0085

Dear Dr. Roper:

The governing board, the medical staff, the Administration and the employees of the Lutheran Medical Center are dedicated to providing quality care to all patients within the community we serve. Lutheran Medical Center is comprised of Lutheran General Hospital, a 124 bed acute medical surgical center, and Richard Young Memorial Hospital, a 181 bed psychiatric care facility.

Located at the western edge of the downtown Omaha area, Lutheran is extensively involved in providing acute health care to the elderly. Some 53% of our admissions at Lutheran General are Medicare patients. The general health of many of these patients, due in part to a lower socioeconomic status, is poor. Many patients are admitted to the hospital with life-threatening chronic degenerative conditions, such as cardiovascular disease, pulmonary disease, diabetes, and kidney disease.

As a matter of record, it should be noted that the HCFA mortality rates for Lutheran Medical Center were within expected ranges for each diagnostic category, and in most cases, at the lower end of the predicted range. However, we believe that mortality data cannot be used directly as a measure of hospital performance, and is most appropriately used to identify areas for further review and investigation. Lutheran Medical Center is committed to the use of mortality information for peer review and quality assurance purposes. However, no single measure of mortality adequately considers the patient's general health

515 South 26th Street
P.O. 3434
Omaha, Nebraska 68103-0434
(402) 536-6600

status, stage or severity of illness, admission source, hospital patient population or case mix, and any specialty services the hospital might provide. Thus, caution should be used in the interpretation of such data.

Following a rigorous review of all patient records included in the HCFA sample, several qualifying statements should be noted. Of significance, 62% of all patients included in the sample were admitted from the Emergency Room. This type of patient is generally in critical condition upon arrival at the hospital and is consequently considered a high-risk group. Additionally, Lutheran Medical Center has a distinct oncology unit that specializes in the treatment of patients with cancer related diagnoses. This is also considered a high-risk group. Review of the records also indicates that over half of the patients were admitted in the final stages of a terminal disease. For these patients, death was imminent, or the result of following the patient's wishes with respect to the use of extraordinary life saving efforts, i.e. Do Not Resuscitate (DNR). In many of the remaining cases, death may not have been the expected outcome of the hospital stay, however it was documented as being a significant possibility. Many of the patients within the sample were discharged to a post-acute care facility and expired shortly thereafter. Continued hospitalization of these patients would not be expected to change this outcome. Finally, due to the small size of our acute facility, all diagnostic categories measured have a sample of less than 100 patients. The statistical validity of such a small sample could very well be in question and conclusions drawn from such data could be misleading.

Quality of care is difficult to measure in a manner that allows for accurate public review and interpretation. We recognize the need for such a system and would be supportive of any program that could accurately accomplish this objective. We believe that mortality data, while providing potentially useful information for internal and external purposes, is not in itself a measure of hospital performance. We feel it is imperative that consumers, payors, and the general public evaluate mortality information with these factors in mind.

Sincerely,

Gary L. Petersen, F.A.C.H.E
President and Chief Executive Officer

Memorial Hospital & Home

• 7TH AND OSAGE ST.
• SIDNEY, NEBRASKA 69162

October 19, 1987

Health Care Financing Administration
Federal Office Building, Room 284
601 East 12th Street
Kansas City, MO 64106

RE: Facility #28-0015 Mortality Data

Dear Sir:

Upon review of the Mortality Data recently received from HCFA the following error is noted:

[redacted] is shown with admit and discharge dates of 06/05/86 - 06/08/86 when in reality, the dates of admission and discharge were 05/20/86 - 06/08/86.

It is also of interest to note that of the 49 patients listed, four died in nursing homes; one died in the emergency room; and, one died out-of-state enroute between another facility and a cardiac cath lab [redacted]

This correspondance is not intended as a response to be published, but rather as a request to consider the above facts in our mortality date.

Sincerely,

Mary Grant

Mary Grant
Director Fiscal Service

pc



October 27, 1987

William L. Roper, M.D., Administrator
Department of Health & Human Services
Health Care Financing Administration
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

Thank you for the opportunity to respond to the release of the mortality report. Our statistics for this year are within the predictable range. However, we have concerns in several areas:

(1) Our 46 bed rural hospital is the primary, almost exclusive, provider of acute and skilled care for three area nursing homes. In fact, 31 of our 68 deaths were of nursing home residents. At the time of death the patients were in the following setting: 21 swing-beds, 15 had returned to the nursing homes, 2 were at home, 30 were in acute beds. We have a hospital based home health agency and provide hospice-type care. The average age of these patients was 80 years. The over 65 population for our service area is 15% of our population which is significantly above the national average.

Each hospital has its own specific differences. Will the public be given these figures in order to better understand and judge the mortality data? Without it, can a fair judgment be made?

(2) There was no provision in the data for severity of illness, other existing illnesses, refusal of patient to be treated. All of these affect mortality but not quality of care. Will the public understand these extenuating circumstances?

(3) Our numbers are small. How does that affect the statistical significance of our figures? We had one case that fell into the group called "severe trauma". This 90 year old frail lady sustained a hip fracture in the nursing home. She returned to the nursing home but died there within the 30 day period. This one case caused our mortality rate in this category to be 100%. Will the public understand? Does this show poor quality of care?

(4) We are within 20 miles of a large urban area with secondary and tertiary care hospitals. Many of our patients are treated there by specialists but when treatment is unsuccessful they return to our hospital to die. Will the public understand? Does the data show this?

(5) Will the public, under Medicare age, understand that these figures apply only to Medicare patients?

"A Good Neighbor
When You Need One"
Memorial Community Hospital
810 North 22nd Street
Blair, Nebraska 68008
Telephone: 402/426-2182

(6) We already have in place several mechanisms by which quality of care is judged. We have a hospital-wide quality assurance program. We are accredited by JCAH which judges quality, based on accepted standards for all areas of care.

(7) You (HCFA) have contracts in each state with a Peer Review Organization to review quality issues in each hospital. Our liability insurance carrier reviews quality issues in our hospital.

We agree that mortality data comparisons are useful but only as an indicator for further investigation. Wouldn't the public good be better served by giving this data to one of the existing review organizations for further study?

(8) We believe mortality data is indicative of mortality not necessarily of quality care. That there is not a cause and effect relationship. Our concern is that this information released to the public will be misleading and confusing rather than helpful.

Sincerely,

Judith A. Sick

Judith A. Sick
Assistant Administrator

JAS:ed

MEMORIAL HOSPITAL
SEWARD, NEBRASKA 68434

October 23, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper,

We would like to take this opportunity to address the mortality information which you seek to publish in December, 1987.

In Seward County, Nebraska, one-third of the population is over the age of 55. The average death age is at 84 for females and 74 for males. We question the validity of materials to go out to the publishers when it has no structure for sound information to be given to the public when it is not eceptionally different that it has been for years. It is interesting that our hospital never falls out of the parameters.

Thank you for the opportunity to address this situation and thank you for your time.

Sincerely,

Douglas W. Ellis

Douglas W. Ellis, Administrator

Loretta Bonczynski ART

Loretta Bonczynski, ART
Medical Records Director

MEMORIAL HOSPITAL
1423 Seventh Street
AURORA, NEBRASKA 68818
(402) 694-3171

Operated by
Memorial Foundation, Inc.

October 24, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE: Hospital 280074

In reviewing the mortality data prepared by HCFA for calendar year 1986, it is interesting to note the dramatic change in the predicted mortality rate for Memorial Hospital resulting from HCFA's changed statistical model for 1986 versus the statistical model used in 1985. While Memorial Hospital is still the same facility servicing the same population base, the predicted mortality has changed from 3.3% in 1985 to a predicted mortality rate with range of 9% to 19% in 1986.

Of the 34 deaths indicated in the 1986 statistics, the following general information should be noted:

a. Average age at time of death was 84.8 years, which is considerably older than the average life expectancy of 82 years for women and 76 years for men. Of the 34 deaths, 19 were between ages 85 and 99.

b. Of the 34 deaths, the condition of 24 was such that "Do Not Resuscitate" orders were in effect in accordance with family wishes and established protocol.

c. Of the 34 deaths, nine occurred after discharge from this hospital. Seven died in nursing homes and two died in other hospitals.

d. Patient [redacted] should not be included in this hospital's mortality statistics as this was a swing bed patient that died ten days after dismissal from acute care of another hospital to this hospital for skilled nursing care.

e. Of the 34 deaths, two were terminal care.

f. Of the 34 deaths, 16 had more than one admission to this or other hospitals in the previous 12 months.

g. All 34 patients had comorbidities which complicated the original diagnosis that was the reason for admission.

h. HCFA's only using the last admission and not all medicare admissions during 1986 resulted in 309 admissions being used in statistics for this hospital (or 308 admissions if corrected as indicated in "d" above). Had the statistics included all medicare admissions for 1986, this hospital would have had 445 medicare admissions age 65 and over and 16 medicare admissions under age 65.

As a part of maintaining accreditation with the Joint Commission on Accreditation of Health Care Organizations (JCAHO), Memorial Hospital has an active quality assurance program. There is a peer review program and there is evaluation of all deaths that occur in the hospital by the medical staff and by an independent consulting pathologist. Any kind of data, whether received from HCFA or generated from in-house monitoring programs, is used to evaluate the quality of care provided at this institution, even though statistical information is not necessarily an indication of quality of care rendered.

When the inpatient census in generally 65% medicare patients, as is the case at this hospital, it is inevitable that there will be some deaths in the hospital. With respect to the mortality statistics for 1986, an analysis of each patient's chart, taking into account the age, diagnosis, and comorbidities of each patient, shows that each patient received quality care consistent with the circumstances presented at time of admission.

Sincerely,

ELDON A. "BUD" WALL
Administrator

METHODIST HOSPITAL
THE NEBRASKA METHODIST HOSPITAL, 8303 DODGE STREET, OMAHA, NEBRASKA 68114, 402-390-4000

October 27, 1987

Health Care Financing Administration
Department of Health and Human Services
Attention: HSQ-148-GNC
P. O. Box 26676
Baltimore, Maryland 21201

Review of the HCFA Medicare mortality statistics indicates that there is one category, Low Risk Heart Disease, in which Nebraska Methodist Hospital has a variance from the predicted mortality rates. An evaluation of the medical records of all deceased Medicare patients within this category indicates that incorrect medical record coding occurred in five cases. If these five cases had been properly coded, Methodist would not have exceeded the range predicted by the HCFA model.

Oakland Memorial Hospital

601 East 2nd St.
Oakland, Nebraska 68045

PROVIDER NUMBER 28-0045

Oakland Memorial Hospital's Comments on 1986 HCFA Mortality Data

DATA VERIFICATION:

The data used by HCFA indicate 20 Medicare patients admitted to Oakland Memorial Hospital during all of 1986 died within 30 days of admission. Of these, 12 died while still patients in the hospital and 8 died after discharge.

Hospital records indicate that a total of 21 Medicare patients admitted to the hospital died within 30 days of admission. 13 died while inpatients and 8 died after discharge. The additional case is listed below:

Patient ID # [redacted] 82 year old male. Diagnostic category GC
Date of admission 9-10-86, Date of Discharge 9-10-86. Date of Death 9-10-86
Principle Diagnosis 560.9.

HCFA data is also inaccurate in that a discrepancy was found in the HIC number of one of the patients. HIC number listed was [redacted] whereas our records indicate the HIC number is [redacted]

INTERPRETIVE REMARKS:

1. 70% of Oakland Memorial Hospital's patients are over the age of 65.

2. The average age of those patients in 1986 listed mortality data is 85.

3. 14 patients listed were over 82, six were over 90 years of age.

4. 8 patients died outside the hospital

5. The hospital service area population is significantly older than the surrounding area, in fact, older than most of Nebraska and the rest of the United States.

6. The Hospital has a swing bed program (skilled nursing beds) as well as its acute beds. This program does allow for the admission of more chronically ill patients than other large acute care facilities.

7. In only one of the diagnostic categories listed did Oakland Memorial Hospital's mortality rate fall outside the range of the predicted mortality. That was in the category of sepsis. The following remarks bear on that particular case:

> Patient was admitted with the presenting symptom of spontaneous urinary tract hemorrhage. The initial course was of acute hypotension, increased white blood count and massive enzyme elevations. The patient with a temperature and elevated white blood count had a clinical diagnosis of sepsis with septic shock. The patient's course was complicated by congestive heart failure. Patient was treated with IV antibiotics, IV vasopressors, Digitalis etc, which did effect marked improvement in the patient's condition. The

The patient had begun to stabilize. However, two days prior to his demise, acute renal failure occurred. The clinical diagnosis was sepsis. Origin of the sepsis was not determined. However, urinary tract was suspected, though urine culture report was negative. Septic shock and acute renla failure did occur.

8. Hospital records show that there were 192 Medicare admissions in 1986 in contrast to the 124 cases listed. We have no way at this time of checking origin of HCFA numbers.

The age of the patients cited in the mortality data is indicated recognizing that at a higher age plateau, death does occur regardless of the level of care given. In reviewing each of the cases cited, our conclusion is that the patients listed received the maximum level of care our institution could offer, yet becasue of their debilitative condition either in whole or part and despite our efforts, death resulted. In no particular case did we find evidence that would warrant intense scrutiny into that case or similar such cases in the future. However, we do intend to have full medical staff review in the future of each mortality as it occurs.

We consider our hospital to be an excellent institution that has provided an extremely high level of care to the community and we intend to continue that mission in the future.

OSMOND GENERAL HOSPITAL
Osmond Nebraska 68765

October 26, 1987

Director
Health Care Financing Administration
Health Standards & Quality Bureau
P. O. Box 26684
Baltimore MD 21207

RE: MORTALITY DATA
HOSPITAL ID: 28-0066

Dear Sirs:

Thank you for the opportunity to comment on the recently released hospital-specific mortality data by your office.

We wish to make several comments regarding the data in an effort to present the data correctly when it is released to the public.

The information as presented to us shows that a total of 51 Medicare patients admitted to Osmond General Hospital died within 30 days of their acute admission.

This information is not correct. A detailed study of the patient records reveals that one patient died 60 days after her acute admission to the hospital. Her admit date was incorrectly listed as the date admitted to skilled nursing rather than acute. In one other case, the patient was transferred to a larger hospital and admitted and subsequently died. Neither of these cases should be counted in our hospital mortality data. (A listing is attached to this letter showing these two errors. Please make the necessary corrections to your records.)

Of the remaining 49 deaths occurring within 30 days of the patient's acute admission to our hospital, 42 deaths occurred in the hospital, and seven occurred after dismissal. Specific data is not available to us regarding the cause of death in these seven cases, and we have no way to correlate the principal diagnosis with the cause of death.

In a detailed review of the 42 deaths occurring in our hospital, we find that the principal diagnosis, i.e., the reason for which the patient was admitted to the hospital, often is not a contributing factor in the cause of the patient's death. For example, in one case, the patient was admitted for a fractured hip, but his cause of death was congestive heart failure. In another instance, the principal diagnosis was decubitus, but cause of death was respiratory failure with congestive heart failure secondary to severe aortic stenosis.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

This data is very misleading when comparing the various diagnostic categories, and particularly if compared among hospitals. The manner in which this data was obtained by HCFA is certainly in question. Use of death certificate information would have provided more reliable information in the development of this study.

In submitting these comments, we wish to respectfully point out that our 37 bed rural facility serves three other communities, none of which have hospitals, but all of which have large nursing homes. Our population is predominantly rural, with Medicare patients comprising 76% of our total occupancy.

Even more interesting is the fact that while our overall average age of death for all patients hospitalized is 81, your mortality data shows an average age of 81.5.

Based upon these facts, the outcomes reflected in your data are what could be expected, given our area and the age of the people we serve.

We do appreciate the opportunity to comment to the HCFA mortality data, and hope that after the data is corrected and released in December, is will not give a misleading picture of the quality of care our hospital is providing. The data does provide each of us with information that will be helpful in our own internal quality assurance activities and evaluation processes.

Respectfully submitted,

Leonard Frodyma

Leonard Frodyma
Administrator

Encl.

LF/ms

PAWNEE COUNTY MEMORIAL HOSPITAL

600 I STREET
PAWNEE CITY, NEBRASKA 68420

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

We have verified the mortality list you sent for our hospital with the following exceptions:

[redacted] Transferred to Bryan Memorial Hospital, Lincoln, NE., and expired there.

[redacted] Patient was dismissed on 4-27-86 and transferred to Pawnee Manor Nursing Home, Pawnee City, NE. Readmitted on 4-28-87 and expired on 5-03-87 with diagnosis of code #428.1

[redacted] Dismissed and transferred to Pawnee Manor Nursing Home, Pawnee City, NE., and expired there.

[redacted] Dismissed and transferred to Colonial Acres Nursing Home, Humboldt, NE., and expired there.

The only area where we were above our range of predicted mortality rate was renal disease. We had only 1 case making that rate 100%. The patient also developed bronchopneumonia due to Klepsiella pneumoniae and hd previously had a stroke in March 1986 with failing health after that.

If you need more information, please let us know.

Sincerely,

Betty C. Fink

Betty Fink, Medical Records

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

PERKINS COUNTY COMMUNITY HOSPITAL
and
GOLDEN OURS CONVALESCENT HOME
GRANT, NEBRASKA 69140

Medicare Provider # 280024

BOARD OF TRUSTEES
MR. FORD CORNELIUS, CHAIRMAN
MRS. JAN VAN BOENING
MR. DAN GENGENBACH
MRS. DORIS OLSEN
MR. HARVEY BROTT



October 23, 1987

Patient: [redacted]
MC I.D. # [redacted]
Attending physician: [redacted]
Date of Admission: 4/4/86
Date of death: 4/29/86
Patient admitted with severe right sternal chest pain on 4/4/86. Admitting diagnosis was acute M.I. VS pulmonary emboli VS dissecting aortic aneurysm. Patient has past history of hypertension and arteriosclerotic vascular disease. Laboratory studies and EKGS indicated cardiac injury. She was treated for an acute myocardial infarction. Dr. [redacted] Cardiologist, Denver, Colorado, confirmed findings and agreed with present therapy. Initially she responded well except for ongoing chest pain. Risk of surgery on aneurysm was very high and not recommended by the cardiologist. On 4/20/86 her chest x-ray showed right pleural effusion. She continued to have severe chest pain at times. Patient's course continued to decline causing respiratory and cardiac arrest secondary to congestive heart failure and dissecting aortic aneurysm. She expired on 4/29/86 at 5:50 a.m.

Patient: [redacted]
M.C. I.D. # [redacted]
Attending physician: [redacted]
Date of Admission: 7/27/86
Date of Death: 7/28/86
Patient admitted 7/27/86 at 6:10 p.m. with severe epigastric pain. Admitting diagnosis was acute myocardial infarction VS rupturing aneurysm. Patient has history of M.I. about four years ago. She was admitted to CCU. EKG on a.m. of 7/28/86 showed trifascicular block. At 6:30 a.m. on 7/28/86 she coded and was in complete heart block. Attempt was made to install a temporary pacemaker without success. She expired at 7:10 a.m. on 7/28/86.

Patient: [redacted]
MC I.D. # [redacted]
Attending physician: [redacted]
Date of Admission: 11/6/86
Date of Death: 11/7/86
Patient admitted 11/6/86 at 9:40 a.m. He was complaining of severe left chest and substernal pain with shortness of breath, nausea and vomiting. Onset two hours prior to admission. Patient had M.I. in 1981, CVA in 1982 with residual left sided paralysis. Patient also has history of MI in May 1986 with placement of temporary pacemaker. Patient admitted to CCU on 11/6/86. He developed bigeminy with multifocal beats. Condition continued to deteriorate. He continued to have frequent PVCs despite Xylocaine bolus and drip. He went into ventricular fibrillation at 7:20 a.m. on 11/7/86. He was defibrillated several times without success and expired at 7:39 a.m. on 11/7/86.

Patient: [redacted]
MC I.D. [redacted]
Date of Admission: 1/19/86
Date of Death: 1/10/86
Attending physician: [redacted]
Patient admitted at 11:07 p.m. on 1/19/86 per ambulance with history of falling shortly after returning home. He was comotose and undergoing CPR when admitted.Nursing personnel unable to obtain pulse or blood pressure on admission. Patient has history of myocardial infarction in 1965 and again in 1972. He had marked left ventricular hypertrophy for many years with congestive heart failure. Admitting diagnosis was acute myocardial infarction. CPR was continued after admission as well as other lifesaving measures. Monitor revealed asystole and he was deceased at 12:33 a.m. on 1/20/86. He was essentially DOA as no pulse or blood pressure could be found. We're not God - we can't bring them back from the dead.

Patient: [redacted]
MC I.D. # [redacted]
Date of Admission: 2/14/86
Date of Death: 2/14/86
Attending physician: [redacted]
Patient admitted with presumed acute myocardial infarction. Patient was chopping ice at the Senior Center, fell over and hit his head. Patient was intubated almost immediately and CPR was carried out on the way to the hospital. Upon arrival at the hospital at 2:50 p.m. he was in a fibrillation pattern. Bicarb and Adrenalin were given. He was defibrillated three times over the course of the next 20 minutes. He converted to a bradycardia at a rate of about 30. After a course of one hour's CPR, no blood pressure was ever obtained. Monitor went to a flat line, eyes dilated and resuscitation was stopped. He died at 3:47 p.m. on 2/14/86. He was essentially DOA.

Patient: [redacted]
MC I.D. # [redacted]
Date of Admission: 8/16/86
Date of Death: 9/8/86
Attending physician: [redacted]
Patient admitted with history of increasing weakness and marked confusion. He had been living alone and had been unable to keep food down for 24 hr. Patient had known carcinoma of the pancreas since April 1986. Patient has had downhill course since that time having lost approximately 30 lb. Blood cultures obtained on the date of admission revealed heavy growth of E. coli. Patient stated that he wanted no IV meds on the morning of 8/18/86, but did agree to IV antibiotics later that day. Was treated with IV Cefobid and his condition improved. Patient continued to feel better and was wanting to go home and was discharged on 8/21/86 taking oral Tetracycline. For the record, cause of death listed on the death certificate was a)respiratory arrest; b) metastatic pancreatic carcinoma.

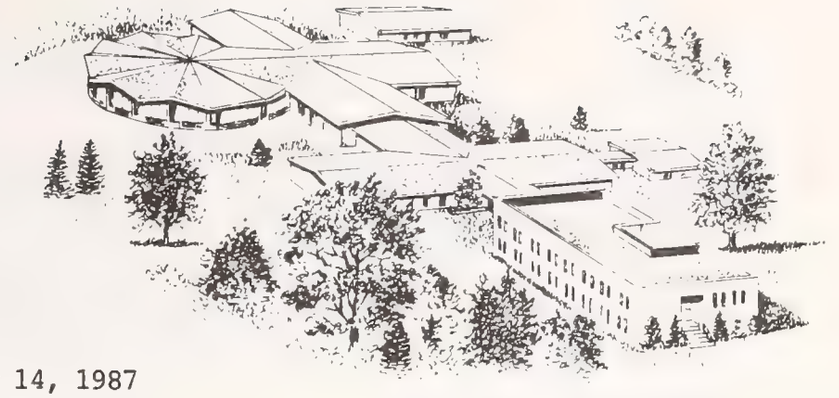
Patient: [redacted]
MC I.D. [redacted]
Date of Admission: 12/27/86
Date of Death: 12/27/86
Attending physician: [redacted].
Patient admitted at 3:00 a.m. on 12/27/86 with chest pain. Patient had previous bypass surgery 12 yr. ago. EKG on admission showed inferior M.I. BP initially was 7/50. Dobutrex was started and gradually his pressure came up in the 90 range. Over the course of the next two hr. he was given 6 mg. of Morphine. At approximately 5:00 a.m. he went into heart block. Patient was intubated and CPR was started. Over the next 40 minutes, he did have some spontaneous beats of his own. He did have good femoral pulses at times, and at times he had no pulses at all. CPR was carried out off and on during the whole time. He was bagged the whole time. Dr. Carl White, Professor of Cardiology at the University of Minnesota was also in attendance and inserted a pacemaker and with much manipulation the heart finally captured, but there was no blood pressure, eyes were dilated and he expired at 5:40 a.m. on 12/27/86.

HOSPITAL = 280024 PERKINS CO COMM HOSP GRANT NE

DIAGNOSTIC CATEGORY	CASES	ACTUAL MORTALITY RATE	RANGE OF PREDICTED MORTALITY RATES
ALL CAUSES	191	8 %	6 TO 17 %
CA - CANCER	10	30 %	5 TO 54 %
CE - CEREBROVASCULAR ACCIDENTS	2	0 %	1 TO 89 %
GC - GASTROINTESTINAL CATASTROPHES	5	40 %	2 TO 69 %
GI - GASTROINTESTINAL DISEASE	34	3 %	1 TO 20 %
GU - UROLOGIC DISEASE	6	0 %	0 TO 68 %
HL - LOW-RISK HEART DISEASE	21	5 %	0 TO 28 %
HM - SEVERE CHRONIC HEART DISEASE	4	0 %	2 TO 74 %
HS - SEVERE ACUTE HEART DISEASE	8	75 %	12 TO 71 %
ME - METABOLIC/ELECTROLYTE DISTURBANCES	1	0 %	3 TO 99 %
OP - ORTHOPEDIC DISORDERS	13	0 %	0 TO 51 %
PN - PULMONARY DISEASE	23	9 %	8 TO 42 %
RN - RENAL DISEASE	1	0 %	0 TO 99 %
SE - SEPSIS	1	100 %	2 TO 98 %
TR - SEVERE TRAUMA	1	0 %	0 TO 98 %

How statistically valid is a study which includes one case and uses it as a 100% study of one area?

PERKINS COUNTY COMMUNITY HOSPITAL
and
GOLDEN OURS CONVALESCENT HOME
GRANT, NEBRASKA 69140



BOARD OF TRUSTEES
MR. FORD CORNELIUS, CHAIRMAN
MRS. JAN VAN BOENING
MR. DAN GENGENBACH
MRS. DORIS OLSEN
MR. HARVEY BROTT

October 14, 1987

Department of Health and Human Services
Health Care Financing Administration
The Administrator
Washington, D.C. 20201

RE: Death List 1987

To whom it may concern:

I realize that the death list with a death rate of 75% of severe acute heart disease looks somewhat bad. I feel that our overall care of coronary artery disease and MIs in Perkins County Community Hospital is actually probably quite good care. I feel that this list does not include probably four or five people over the last year that have had severe unstable angina which we have transferred to Denver for emergency bypass surgery and catheterization. I feel that these sort of people are the people that are younger, viable patients even though they are medicare age, that we have prevented MIs in. The people on this death list, I feel, are quite elderly people and I think it is basically a farce to publish a death list that these are basically skewed data that I feel at some point medicare should be sued over to publish anything in the papers with such skewed data.

[redacted] was a quite elderly lady. I think anytime you have an MI which shows heart block, your success of resuscitation is about zilch. [redacted] basically was resuscitated downtown on the sidewalk and brought into the hospital with a rhythm, but basically he probably was in a very small percentage wise of being able to be resuscitated after collapsing on the sidewalk downtown. [redacted] patient, had carcinoma of the pancreas which I think somewhat mitigates any decision being made on if this patient died of sepsis and whether it was good or bad care. [redacted] came in at 3:00 a.m. when he had his MI and died within two hours again in heart block. I think that the proper things were done, but this patient had severe coronary artery disease and a history of previous bypass surgery and probably was not resuscitatable. Again, I feel the medicare system should think twice about publishing death lists that basically do not convey the true quality of care and I think it does not favorably reflect good judgment on the medicare system's part to publish this sort of thing.

It seems odd to me that the range of predicted mortality rates as sent out by your questionnaire is something like 12-71%. That seems like an odd range. It seems to be that your severe acute heart disease really

should be broken down into different age groups, for example 60-70, 70-80, 80-90. I don't think you are really comparing apples with apples. I'm not even sure that your predicted mortality rate that you sent out does that include statistics of 40 year olds and 50 year olds, even though they are not necessarily medicare. Again, I don't feel like the government publishing these things has any redemptive value to the health care of America at this time.

Thank you.

Yours truly,

C. R. Colglazier, M.D.

CRC/kb
Enclosure

NE 82.4

PHELPS MEMORIAL HEALTH CENTER

REX J. KELLY, Administrator

October 14, 1987

Health Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684 Hospital I.D. Number 280108
Baltimore, Maryland 21207

Dear Sirs:

We have reviewed the selected mortality information provided to us relative to our hospital and find the information to be correct. A review of Medicare deaths in our hospital for the last eighteen years revealed very little difference in the percent of deaths, as compared to admissions. Year 1986 was one percentage point under the average. We did not compare deaths based on Diagnostic Category or Principal Diagnosis, but have every reason to believe that the comparison would be similar.

I hope our comments are helpful and will prove of value as this program progresses.

Very truly yours,
Phelps Memorial Health Center

Rex J. Kelly

Rex J. Kelly, Administrator

RJK:ba

1220 Miller Street, Holdrege, Nebraska 68949
P.O. Box 630 Tele. 308 995-2211



PLAINVIEW PUBLIC HOSPITAL

PHONE 582-4245 — PLAINVIEW, NEBRASKA 68769

October 22, 1987

William L. Roper, M.D., Administrator
Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Dear Dr. Roper:

I wish to provide brief comment on behalf of Plainview Public Hospital, Plainview, Nebraska, No. 28-0041, concerning mortality information to be published.

All information for this hospital has been thoroughly reviewed and is correct.

One concern I have with this type of statistics is that a small hospital may have very limited numbers in a certain diagnosis, and even one death can cause a high percentage when generating mortality rates. An example for this hospital would be the two patients with Renal Disease, with one who expired, therefore giving us a 50% Mortality Rate.

That type of statistic based on small numbers could be potentially damaging to the small hospital trying to survive if the general public interprets the information incorrectly.

Sincerely,

PLAINVIEW PUBLIC HOSPITAL

Vern Minnis

Vern Minnis, Administrator

VM:etm

ROCK COUNTY HOSPITAL

P.O. BOX 100 — BASSETT, NEBRASKA 68714

PROVIDER NUMBER: 28-0098

COMMENTS ON THE HCFA MORTALITY DATE

Data Verification:

The data used by HCFA indicate that a total of fifteen (15) Medicare patients admitted to Rock County Hospital died within thirty (30) days of admission. Of these, nine (9) died while still a patient of the hospital, while three (3) died in a Long Term Care Hospital bed and three (3) died in other facilities, after discharge. Our own records indicate that 173 Medicare admissions occurred in the calendar year of 1986. Presumably the discrepancy reflects multiple admissions of individual beneficiaries to different hospitals. We have no way of verify whether the number of Medicare patients treated at the Rock County Hospital, as outline by HCFA, is correct. Our own records also indicate that of the fifteen (15) Medicare patients who died within 30 days of admission while still an in-patient, six (6) were still alive at the time of discharge to another facility or to the long term care unit.

A copy of the patient listing will also clearly identify two patients mistakenly coded as dead at the time of discharge or shortly thereafter. One patient actually died three days later in a long term care hospital bed. According to HCFA's statistics, the second patient was actually alive ten days later than statistics indicate.

It is impossible to determine the percentage of the six patients dying after discharge who were in fact alive, as information concerning death after discharge, is not normally included in the patient's medical record. In three of our six deaths, this would the the case.

Rock County Hospital is typical of a small rural hospital trying to survive and continue to provide quality medical services to the people of the area. Our county is sixty miles in length and approximately forty miles wide. We have two towns which are within this county. One town is ten miles from the nearest hospital, Bassett, and the second is Bassett. Our rural community is therefore served by one licensed ten bed acute care/ten bed long term care hospital with one physician.

For medical services, patient's much travel great distances, many times over dirt roads without even the benefit of black top or hard surfaces. It is not unusal for a patient to reside forty to sixty miles from the hospital. The general population of the community is comprised of people over sixty years of age--approximately 70%.

ROCK COUNTY HOSPITAL

P.O. BOX 100 — BASSETT, NEBRASKA 68714

PROVIDER NUMBER: 28-0098

COMMENTS ON THE HCFA MORTALITY DATA

Being isolated has not been an issue until now. Quality of medical care can be given in the small and rural hospital just as well and maybe more caringly than it can be given in the city. The HCFA report does not address the consideration of patient's and their families, who may bring the patient to the hospital to die--and often this is the case.

Additionally, even though the community has a nursing home, some patients and some families prefer that the patient be cared in the Long Term Care area of the hospital. This is a private pay wing, designed to assist those who no longer meet the criteria for swing beds, but who do not wish to be placed in a nursing home "to die".

This wing is attached to the hospital and is part of the hospital, yet it is not caring for the acutely ill. The patient's listed on the HCFA report indicate that two of the patient's died in this setting. These are inappropriately listed as acute care deaths.

Two patient's died after being transferred to a nursing home setting. Upon transfer, the condition as stable. Neither patient died from conditions addressed during hospitalization. Again these are inappropriately attributed to the hospital.

One patient died within 29 days of admission to the hospital of natural causes at his home. The patient is listed inappropriately as a hospital death.

Two patients were admitted in medical conditions of a rapidly deteriorating nature. Neither were every stable enough to be transferred with a Life Flight helicopter to a larger setting. Both patients were elderly 74 and 89, respectively, and both had multiple comorbitities. These are felt to be inappropriately listed as a hospital death. It was obvious to the physician and families at the time of admission, that death was a real possibility.

One patient was admitted, treated, and exhibited stable conditions. This patient was scheduled for subsequent discharge when a second myocardial injury occurred on the fifth hospital day. Re-examination of the record, does not indicate any problems with quality of care.

In the several remaining cases, one was a Sepsis case. The patient died in the Long Term Care wing of the hospital. She had been appropriately treated, and the family requested no aggressive measures. The patient placed the hospital in the excess death range in the mortality figures. Additionally, the hospital has been able to identify six other admissions of sepsis during this time period.

ROCK COUNTY HOSPITAL

P.O. BOX 100 — BASSETT, NEBRASKA 68714

PROVIDER NUMBER: 28-0098

COMMENTS ON THE HCFA MORTALITY RATE

Rock County Hospital does not see anyway, that HCFA can utilize this set of statistics for quality of care issues. The guidelines are not clear. There is a descrepancy in comparing hospital's of similar size. For example, a hospital seventeen miles from Bassett who share the same medical staff and the same types of patients.

This hospital has two categories of patient's Rock County does not have. Additionally, in comparing the range of predicted mortality rates, the ranges differ.

The following two listed patients have incorrect dates of death.

[redacted] Age 089 Date of Death 10/21/86

[redacted] Age 084 Date of Death 10/27/86.

All principal diagnosis given for the patient's are correct and the princiipal procedures listed are correct. The number of hosital patient's admitted within calendar year of 1986 are incorrect. This amount should be substanially higher. The cases for sepsis should be higher.

Please also consider that many patient's and famillies have requested that no aggressive treatment be begun upon the patient. These families have a right to have their wishes honored within reason.

We feel that the material utilized for statistics is inappropriate. Quality of care cannot be addressed by statistics alsone. Quality of care can only be addressed by people--people caring for people.

Alma M. Sandall

Alma M. Sandall
Administrator
Rock County Hospital
Provider Number: 28-0098

City Of Loup City

Sacred Heart Hospital
626 N Street, P.O. Box 524
Loup City, Nebraska, 68853-0524
Phone 308-745-0503

Rose Lane Nursing Home
Rural Route 2, Box 46
Loup City, Nebraska 68853-0046
Phone 308-745-0303

October 23, 1987

Department of Health & Human Services

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

"COMMENTS ON THE HCFA MORTALITY DATA"

The data used by HCFA indicates that a total of 11 patients covered by Medicare admitted to Sacred Heart Hospital died within 30 days of admission. Of these, we call to your attention that one died 19 days after dismissal from Sacred Heart Hospital at another institution.

We also call to your attention that our average age of death was 85.5 years of age without the above mentioned case. Using the data provided by HCFA, the average age of deaths increases to 86.4 years of age. This is far above the national averages.

Enclosed you will find a copy of the provided listing indicating the patient that did not expire in our facility.

We further feel that the release of such information is a breech of patients rights and confidentiality. Public interpretation in rural communities of this information is dangerous.

Thank you.

Sincerely,

Marlyn Reinitz
Administrator/CEO

MR/aw

"An Equal Opportunity Employer"

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

SARGENT DISTRICT HOSPITAL
1201 W. 7th STREET
SARGENT, NEBRASKA 68874
(308) 527-3414

October 10, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

We are in receipt of your letter dated September 21, regarding mortality information and we thank you for giving us a chance to respond.

You have listed fourteen patients who died at our hospital during 1986. The area of Sargent, Nebraska is populated heavily by citizens over the age of 65 and the proportion of Medicare patients to all other patients, in some months can run as high as 65% - 70% of total admissions. The year 1986 was a difficult year in that our only physician for the preceding 20 years had died and we were forced to use locum tenens doctors until we got a permanent physician in September of 1986. Our census for that year (our fiscal year) was less than half that of the previous fiscal period when our excellent doctor was alive and very active. With those facts in mind, our mortality percentage would be a little higher but not excessively so and certainly not at all in the light of individual circumstances. We note our mortality rates for the listed diseases in your table are still under the range of the predicted mortality rates shown.

The first patient on your list, [redacted] had metastatic carcinoma of the colon and had been hospitalized for long periods of time at another hospital for surgery and chemotherapy during that previous year. She was hospitalized here for pain control with narcotics, in the final stages of her disease. We transferred her to Swing Bed, not knowing at that time whether she might live 3 days or 23. Unfortunately she expired the same day she was transferred to the Swing Bed.

The second patient [redacted] was enroute to his home in Sargent from the Hastings Hospital and suffered a stroke with paralysis in his car and had to be admitted here. He had numerous comorbidities, including ASHD with hypertension as well as other cardiac and respiratory problems.

There were 5 admissions from the Nursing Home in Sargent = [redacted] a 90 year old female presented with an acute bowel obstruction and shock. Because of her age and overall physicial condition and consultation with her family, no surgery was attempted.

The hospital's comments also included its written annotations to patient specific information provided by the Health Care Financing Administration to the hospital. We did not publish these additional comments because of the numerous patient identifiers contained in these data.

Other nursing home patients were [redacted] congestive heart failure with pneumonia and ischemic heart disease, age 88, who had been hospitalized several times in the past for her disease, as well as insulin dependent diabetes mellitus, [redacted] 86 congestive heart failure, who also had pneumonia and COPD, both comorbid conditions, and [redacted] 94, a probable MI with congestive heart failure and acute renal failure, both significant comorbid conditions. A fifth nursing home patient, [redacted] age 84, had severe cardiac problems with hypoexemia and ventricular fibrillation.

Two of the patients on your list have never been in our hospital before. One, [redacted] 83, presented with an acute anterior myocardial infarction. He also had significant comorbid conditions, ventricular arrhythmia and diabetes mellitus. You have listed date of discharge as 2-1-86 and date of death as 2-2-86. Date of death should be 2-1-86. [redacted] 95, was a Hastings resisdent. He had not seen a doctor in 40 years and had no relatives there. He had a sister living in Sargent and she brought him here with a viral pneumonia, and multiple comorbid conditions, including intractable cardiac failure, atrial and ventricular fibrillation, anemia, and ASHD. Anyone 95 years of age might be expected to have such complications.

One of these patients, [redacted] had advanced emphysema and also ventricular fibrillation due to anoxia, a significant comorbidity to his principal diagnosis of severe bronchial asthma. [redacted], 71, had had severe problems with COPD and bronchiectasis for the past 10 years of her life, being on an oxygen concentrator at home and hospitalized many times for the severity of this disease. She died of congestive heart failure, with atrial fibrillation, a significant comorbity. [redacted], 86, presented in acute renal failure. She had had cardiac problems for several years and had a pacemaker. Comorbid conditions for this patient included congestive heart failure, hypotension and eventually terminal shock.

The 58-year-old patient on your list (actually 59), [redacted] had been severely mentally retarded all of her life. She was not capable of assuming any responsibility for her life at all and was unable to communicate effectively. Rather than living in an institution, a sister had dedicated her life to her. We feel certain this lady was unable to communicate the severity of her illness to this dedicated sister and when she was brought in, she had a spontaneous pneumothorax of several days duration, as well as a toxic megacolon and was only able to survive five hours after admission. There was nothing that could have been done that would have changed this fact.

91-year-old patient, [redacted] was admitted on 4-16 rather than 4-17 as you show, with a massive anterior MI, with an autoimmune hemolytic anemia and urinary tract infection.

Thank you very much for taking the time to read these brief resumes on these patients. It is definitely our feeling that we provide the highest quality of care for all of our patients and that everything was done that could have been done anywhere, unless they had been placed on a respirator. We feel this is evidenced by the fact that 7 of these patients were 86 years of age or older with four of being in their 90's. Average age of these 14 patients would be 83, which includes the one patient under 65. It is definetely the opinion of this hospital, as well as the relatives of these patients that nothing more could have been done to extend their lives and that their age at death reflects the fact.

Yours very truly,

SARGENT DISTRICT HOSPITAL

Administrator

SAINT FRANCIS MEDICAL CENTER

P.O. Box 2118 · 2620 West Faidley Avenue · Grand Island, Nebraska 68802 · 308 · 384 · 4600

October 13, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
Heal Standards and Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

RE: Provider Number 280023
Saint Francis Medical Center
Grand Island, NE 68802

Dear Doctor Roper:

We have reviewed the mortality information you sent to us regarding Medicare patients treated in our hosital in 1986. We have identified the following discrepancies:

Category CE, Stroke

We had an actual total of 55 Medicare patients admitted with cerebrovascular accidents in 1986 which reduces the mortality rate to 38%. Your mortality rate of 55% is based on only 38 patients.

Nineteen of the twenty-one patients who expired were no code status which reflects the documented wishes of the patients and families that heroic measures not be taken. Two patients were discharged alive, one to a rehabilitation center and one to a nursing home.

Category HS, Severe Acute Heart Disease

We had an actual total of 51 Medicare patients admitted in this category in 1986 which reduces the mortality rate to 45%. Your mortality rate of 58% is based on only 40 patients.

Corrections of totals in these two categories alone reduces our overall death rate to 11%.

In addition, we are a regional referral center and sicker patients are transferred to our facility from smaller community hospitals that do not have the availability of CT scanning, specialists, etc.

Thank you for allowing us to provide this information to be included in your publication of the mortality data.

Served by The Sisters of Saint Francis since 1887

Sincerely,

Cale E. Neal

Cale E. Neal, President

CEN/erb

NE 95

SAINT FRANCIS
MEMORIAL
HOSPITAL

430 N. Monitor St. West Point, Nebraska 68788-0287 • 402/372-2404

Hospital ID Number = 280038

October 17, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, MD 21207

Dear Sir:

The following discrepencies were identified in the data submitted. The first two affect the statistics presented.

*[redacted] HS 78 F 7/20/86(Adm) 7/20/86(Disch) 7/26/86(Death)
This patient was transfered on 7/20/86 to Methodist Hospital in Omaha, Nebraska, so our facility was not the last place of admission.

*[redacted] GI 84 F 12/10/86(Adm) 12/14/86(Disch) 12/14/86(Death)
Acute admission date was 11/13/86. Date of death is greater than 30 days of admission.

[redacted] CE 87 7 8/20/86(Adm) 8/20/86(Disch) 8/21/86(Death)
Date of death was 8/20/86. This was therefore an in-house not a post-hospitalization death.

[redacted] PN 57 M
According to our records, this patient was 58 years old.

[redacted] CA 79 M 6/27/86(Adm) 7/12/86(Disch) 7/12/86(Death)
Acute admission 6/24/86. Death within 30 days of admission.

[redacted] CA 67 M 3/26/86(Adm) 3/31/86(Disch) 3/31/86(Death)
Acute admission 3/17/86. Death within 30 days of admission.

**Renal disease (RN) is the only category outside the range of predicted motalitiy rates. One case in this category is not statistically significant. ([redacted] 75 F 1/13/87(Adm) 1/20/86(Disch) 1/29/86(Death) 586(Diagnosis))
However, due to the patient's advanced age, chronic renal disease exacerbated by medication for Parkinson's, and sever cerebral arteriosclerosis that led to her refusal at times to take proper nourishment and fluids, death was a significant possiblity.

Sincerely,

Sister Emy Beth Furrer

Sister Emy Beth Furrer
President

AMI Saint Joseph Hospital
At Creighton University Medical Center

October 16, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
PO Box 26684
Baltimore, Maryland 21207

RE: Comments on the HCFA Mortality Data
Medicare #280030

Attention Administration

AMI Saint Joseph Hospital supports the concept of communicating appropriate and meaningful information to consumers regarding the quality of care delivered in our nation's health care facilities. However, we are concerned about the release of the HCFA mortality rates because the statistical model utilized has not been validated and therefore may lead to misinterpretation by the public. For example, pericarditis (inflammation of the sack around the heart) falls into the low-risk heart disease category. One patient who was placed in this category came to the hospital with extensive pericarditis, diabetes, end-stage kidney disease, was dependent upon dialysis and was bleeding from the stomach and intestine. He was definitely not a low-risk patient.

AMI Saint Joseph Hospital concurs with the position taken by the American Society of Internal Medicine, "Not all the factors affecting the probability of death in a particular case, such as the severity of a patient's illness, are included in this data. Consumers should not use this information as the sole source for determining what hospital to use."

AMI Saint Joseph Hospital's mortality rates in all diagnostic categories fall well within the range of predicted mortality rates. In 81% of the diagnostic categories, our actual mortality rate falls below the midpoint of the range. Though these numbers appear to indicate commendable performance, they do not tell the whole story.

AMI Saint Joseph Hospital is a tertiary, urban, referral center. We operate a Level I trauma center and specialize in severe heart, renal, and other diseases. As a result of our location and the services provided, we treat many severe/critical cases. A large percentage of our patients have complicated and multiple medical conditions that are not accounted for in the HCFA data. As such,

601 North 30th Street, Omaha, Nebraska 68131-2197 402 449-4000

our actual mortality rates will always be higher than other hospitals that do not deal with this high-risk population. Once informed, the public will be able to put the data into its proper perspective and realize that the HCFA model does not allow for meaningful hospital to hospital comparison.

AMI Saint Joseph Hospital takes pride in the quality of care and service we provide to the community. A comprehensive quality assurance program already monitors the care we provide. The HCFA data will be added to an extensive array of reports that receive on-going and thorough analysis.

Sincerely,

William S. Hussey

William S. Hussey
Executive Director

WSH:bh

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA In-hospital	Deaths Reported by HCFA Post-hospital	Deaths Verified by Hospital* In-hospital	Deaths Verified by Hospital* Post-hospital
CA -- Cancer	35	14	36	13
CE -- Cerebrovascular Accidents	16	1	16	1
GC -- Gastrointestinal Catastrophes	13	1	13	1
GI -- Gastrointestinal Disease	4	3	4	3
GU -- Urologic Disease	4	0	4	0
GY -- Gynecologic Disease	1	0	1	0
HL -- Low Risk Heart Disease	22	3	22	2 (Exc 1 ER Death)
HM -- Severe Chronic Heart Disease	14	6	14	7
HS -- Severe Acute Heart Disease	36	4	36	4
ME -- Metabolic/Electrolyte Disturbances	4	4	5	4
OP -- Orthopedic Disorders	0	0	0	0
PN -- Pulmonary Disease	29	12	33	8
RN -- Renal Disease	10	4	11	4
SE -- Sepsis	1	1	1	1
TR -- Severe Trauma	6	3	6	3
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	40	12	38	12
Total -- All Categories	235	68	240	63

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

NE 9.72

tilden community hospital
tilden, nebraska 68781
(402) 368-5343

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

Upon receiving the mortality data for the year 1986 to be released in December, the hospital would first like to present some points of fact.

1. This is a rural area with a heavy elderly population factor.
2. This hospital has a swing bed program both SNF and ICF which affects this type of patient for in-house census.
3. This hospital is a primary care center for at least three long term care facilities in the area.
4. We accept transfers from large referral centers in order to provide patient and family the care and concern of a near to home and family type center. This enables the patient to maintain some dignity and control of their final days.

Listed below are comments relating to individual cases which were listed on our facility's mortality report.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable. The diagnostic category should not be G.I., but should be CA as he had metastatic carcinoma of the lung.

#[redacted] Patient's diagnostic category should not be listed as G.I. as he died of a pulmonary embolus.

#[redacted] Our facility was not the last facility that he was admitted to. He was transferred to another acute care facility where surgery was performed. Patient died at that facility. Cause of death was listed as cardio-respiratory failure.

We appreciate being given the opportunity to clarify the data that will be published.

Sincerely,

DeAnna Martensen

DeAnna Martensen
Administrator

DM/sp

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA In-hospital	Deaths Reported by HCFA Post-hospital	Deaths Verified by Hospital* In-hospital	Deaths Verified by Hospital* Post-hospital
CA -- Cancer	35	14	36	13
CE -- Cerebrovascular Accidents	16	1	16	1
GC -- Gastrointestinal Catastrophes	13	1	13	1
GI -- Gastrointestinal Disease	4	3	4	3
GU -- Urologic Disease	4	0	4	0
GY -- Gynecologic Disease	1	0	1	0
HL -- Low Risk Heart Disease	22	3	22	2 (Exc 1 ER Death)
HM -- Severe Chronic Heart Disease	14	6	14	7
HS -- Severe Acute Heart Disease	36	4	36	4
ME -- Metabolic/Electrolyte Disturbances	4	4	5	4
OP -- Orthopedic Disorders	0	0	0	0
PN -- Pulmonary Disease	29	12	33	8
RN -- Renal Disease	10	4	11	4
SE -- Sepsis	1	1	1	1
TR -- Severe Trauma	6	3	6	3
OP -- Ophthalmalogic Disease	0	0	0	0
UN -- Other Diagnoses	40	12	38	12
Total -- All Categories	235	68	240	63

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

NE 9.72

tilden community hospital
tilden, nebraska 68781
(402) 368-5343

October 27, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Dear Sirs:

Upon receiving the mortality data for the year 1986 to be released in December, the hospital would first like to present some points of fact.

1. This is a rural area with a heavy elderly population factor.
2. This hospital has a swing bed program both SNF and ICF which affects this type of patient for in-house census.
3. This hospital is a primary care center for at least three long term care facilities in the area.
4. We accept transfers from large referral centers in order to provide patient and family the care and concern of a near to home and family type center. This enables the patient to maintain some dignity and control of their final days.

Listed below are comments relating to individual cases which were listed on our facility's mortality report.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable.

#[redacted] Patient was being cared for with a diagnosis of terminal carcinoma. Death was expected and unavoidable. The diagnostic category should not be G.I., but should be CA as he had metastatic carcinoma of the lung.

#[redacted] Patient's diagnostic category should not be listed as G.I. as he died of a pulmonary embolus.

#[redacted] Our facility was not the last facility that he was admitted to. He was transferred to another acute care facility where surgery was performed. Patient died at that facility. Cause of death was listed as cardio-respiratory failure.

We appreciate being given the opportunity to clarify the data that will be published.

Sincerely,

DeAnna Martensen

DeAnna Martensen
Administrator

DM/sp

COMMENTS ON THE CALENDAR YEAR 1986 HCFA MORTALITY DATA

Tri-County Area Hospital District

October 7, 1987

Data Verification

HCFA data indicates that of 350 Medicare patients admitted to Tri-County Area Hospital District, 42 patients died within 30 days of hospital admission. Of these, 36 died while still a patient of the hospital and 6 died after discharge date.

Hospital records indicate that 579 Medicare admissions occured in 1986. This dicrepancy presumably reflects multiple hospital admissions to this hospital and further Medicare admissions were apparently related to other Diagnostic categories not tested. This hospital has no way to verify HCFA data concerning Medicare admissions.

Our records do indicate that of the 42 Medicare patient who died within 30 days of admission, 8 were still alive at time of discharge. It is not possible to determine from hospital records the percentage of the 8 patients who died after discharge who were in fact alive, because information concerning death after discharge is not in the patients' record. Nor is it readily possible to determine from hospital records whether a patient who died after discharge, died as a result of the diagnostic category attributed in the HCFA report.

Results of Medical Record Review

Our records indicate that 2 patients' dates of admission were "swingbed" or skilled nursing care admissions, not acute care admissions. HCFA mortality data is not affected since the patients died within 30 days of acute care admission. Regardless, it is inappropriate that the acute care admission data format not be followed consistantly since 30 day cut-off dates could be exceeded on some patients.

Unique Services

This hospital offers limited Hospice services. Four of the 42 Medicare patients who died were Hospice patients. These patients were recognized terminally ill of cancer and death was the expected result of each admission which does not reflect upon quality of care or inappropriate mortality but rather patient mix.

Interpretive Remarks

September 21, 1987 correspondance from the HCFA Administrator states: "...we have identified the last hospital admission of the year for all Medicare beneficiaries in 1986 including those Medicare patients who died within 30 days of admission." Pertinent facts are noted as follows:

	Date of Admission	Date of Discharge	Date of Death
Patient A	12-20-85	01-09-86	01-09-86
Patient B	12-22-86	12-26-86	01-08-87
Patient C	12-28-85	01-04-86	01-08-87

Patient B was admitted to this hospital in 1986, and died within 30 days of admission in 1987. Patients A and C were admitted in 1985, and died within 30 days of admission in 1986. It is submitted that with reference to the above statement and data, either patients A and C are inappropriately listed or patient B is inappropriately listed, depending upon interpretation. It is implied that a temporal inconsistancy exsists here thereby invalidating the inclusion of the data presuming HCFA intends to use the same methodology in the compilation of mortality information for 1987. If that is the case, the demise of patient B will be duplicated in Tri-County Area Hospital District mortality data inappropriately in the next calendar year.

University
of Nebraska
Medical Center

42nd and Dewey Avenue
Omaha, NE 68105

COMMENTS ON HCFA MORTALITY DATE
UNIVERSITY OF NEBRASKA MEDICAL CENTER
UNIVERSITY HOSPITAL, OMAHA, NE.

The data used by HCFA indicate that a total of 105 Medicare patients admitted to University Hospital died within 30 days of admission. Of these, 76 died while still a patient of the hospital while 29 died after discharge. Analysis revealed that death was expected or highly probable in all these cases. After review it is felt this data is accurate with the exception of one date of death reported incorrectly.

The hospital's actual mortality rate does not fall outside the range of predicted mortality rate in any of the diagnostic categories.

University Hospital provides tertiary services and is a regional and national referral center with a higher than average complexity of cases treated. Hospice services were provided to several patients. The information contained in the report confirms the ongoing assessment by University Hospital Medical Staff that the quality of care provided is at the highest levels achievable.

Provider No. 280061

COMMENTS ON HCFA MORTALITY DATA

West Nebraska General Hospital (WNGH) provides general and acute care in rural western Nebraska. WNGH is designated as a Rural Referral Center. This designation has been granted by Health Care Financing Administration (HCFA) to recognize institutions which treat a large number of severely ill patients in isolated rural settings. The requirements to be designated a Rural Referral Center include a minimum of admissions, a minimum mix of Board Certified physicians and a minimum case mix index, a measurement of severity of illness.

As a Rural Referral Center, WNGH cares for individuals who cannot be treated in smaller community hospitals. The service area encompasses 110,000 people residing within 16,400 square miles. Many Medicare patients are transferred from nursing homes when death is imminent. WNGH maintains a Skilled Nursing Unit and Hospice Service, treating many patients with terminal diseases. Forty-eight percent of the admissions to WNGH are Medicare, which reflects the large percentage of elderly health care needs in the service area.

The HCFA Mortality Data are based on a model which includes only a few patient characteristics. The model does not include severity of illness measures, whether the patient was transferred to the hospital from a nursing home, whether the patient had a terminal illness, or the patient's psychological state or general health status. The HCFA data assumes that patients treated at WNGH are average in these respects. In summary, the HCFA data does not measure quality. Rather, it provides additional information to focus peer review.

Quality of care is a major goal at WNGH. Hospital-wide quality assurance activities routinely evaluate mortality data, including a case-by-case review of all deaths. PRO review activities have not identified quality of care concerns in their review of hospital deaths.

york general hospital
2222 lincoln avenue, york, nebraska 68467
phone (402) 362-6671

October 6, 1987

Health Care Financing Administration
6325 Security Blvd.
Baltimore, Maryland 21207

RE: Mortality Information

Dear Sirs;

Thank you for allowing the Hospital Industry to review the mortality information pertaining to each respective hospital before it is released.

In reviewing the Range of Predicted Mortality Rates for York General Hospital, provider number 280039, only one (1) area, Renal Disease, did not meet the predicted range. The Range of Predicted Mortality Rates for the Renal Disease Diagnostic Category is from 2% to 98%. The actual mortality rate for York General Hospital was 100% because the one and only case that was admitted, died. I feel this isolated instance and the lack of sufficient cases to make a proper comparison should be highlighted or this comparison eliminated as not to skew information from which the public will be asked to make decisions.

Thank you again for allowing hospitals to respond to the information you have compiled. I trust the comments and recommendations will be utilized to provide accurate and worth while information.

Respectfully,

Al Klaasmeyer
Administrator
York General Hospital, Inc.

kf

Nevada

NV-1

Medicare Hospital Mortality Information

HOSPITALS		Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
Name/ Location	Comment/ Reference	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADELSON HOSPICE-NATHAN SPE LAS VEGAS NV 89109	NV-5	218	85	27-41	150	87	28-47	1	100	0-97	3	100	5-86	2	100	4-92	.	.		18	67	19-63	5	100	8-78
BATTLE MOUNTAIN GEN HOSP BATTLE MOUNTAIN NV 89820	NV-6 *	21	14	8-42	1	100	1-97	.	.		1	0	0-97	1	0	0-97	2	0	5-93	1	0	0-97	8	13	6-61
BOULDER CITY HOSPITAL BOULDER CITY NV 89005	NV-7 *	217	5	7-17	5	40	4-72	6	17	8-74	5	0	1-68	8	13	5-60	4	25	9-85	1	0	1-97	55	5	8-30
CARE UNIT HOSP OF NEVADA LAS VEGAS NV 89102	NV-8 *	38	0	1-20	.			.	.		.	.		.	.		.	.		.	.		.	.	
CARSON-TAHOE HOSPITAL CARSON CITY NV 89701	NV-9	876	15	8-16	90	29	15-36	35	40	15-44	14	29	4-45	38	26	12-39	43	40	22-51	20	15	5-42	93	26	9-26
CHURCHILL PUBLIC HOSPITAL FALLON NV 89406	NV-10 *	251	13	8-19	5	20	1-68	11	36	11-61	8	25	1-55	21	24	12-50	5	20	10-80	12	17	2-46	54	15	9-31
COMMUNITY HOSPITAL OF NO L NORTH LAS VEGAS NV 89030	NV-11	674	19	10-18	31	23	13-45	30	33	14-46	15	27	6-47	43	37	13-39	20	50	17-57	28	18	4-33	128	27	13-29
DESERT SPRINGS HOSPITAL LAS VEGAS NV 89119	NV-12 *	1868	8	8-14	100	17	15-36	61	23	18-41	51	18	7-30	110	17	14-30	82	27	25-46	56	16	12-37	148	10	11-26
ELKO GENERAL HOSP ELKO NV 89801	NV-13 *	298	10	6-15	19	21	7-45	8	25	8-65	8	25	3-57	12	25	6-52	6	50	11-76	11	9	3-50	28	18	7-36
GROVER C DILS MED CTR CALIENTE NV 89008	NV-14	48	13	9-31	.	.		2	0	2-90	1	0	1-97	.	.		5	40	11-81	1	0	2-98	12	17	7-53
HUMANA HOSPITAL SUNRISE LAS VEGAS NV 89109	NV-15	3519	11	9-15	285	17	17-32	103	25	20-38	85	21	10-29	174	25	16-30	157	27	27-44	91	22	11-32	342	16	12-23
HUMBOLDT GENERAL HOSPITAL WINNEMUCCA NV 89445	NV-16	60	18	7-26	3	100	6-87	.	.		2	50	0-89	5	20	3-69	5	20	12-82	3	33	2-82	7	29	2-59
LAKESIDE COMMUNITY HOSP INCLINE VILLAGE NV 89450	NV-17 *	72	6	3-18	3	0	1-81	.	.		2	0	0-90	3	0	1-81	3	67	4-84	2	50	0-90	3	0	0-83
MT GRANT GENERAL HOSPITAL HAWTHORNE NV 89415	NV-18 *	86	13	7-22	5	40	6-75	2	100	4-92	2	0	0-91	3	0	2-82	3	33	7-89	1	0	0-98	21	10	6-41
NYE GENERAL HOSPITAL TONOPAH NV 89049	NV-19 *	51	12	6-26	.	.		.	.		2	0	0-91	3	33	2-81	2	50	9-97	1	0	0-97	8	13	6-62
OWYHEE PHS INDIAN HEALTH S OWYHEE NV 89832	NV-20 *	13	0	1-40	.	.		.	.		.	.		1	0	0-97	.	.		1	0	0-99	1	0	0-97
PERSHING GENERAL HOSP LOVELOCK NV 89419	NV-21	23	4	4-33	.	.		1	0	0-97	1	0	0-98	.	.		2	0	3-91	.	.		3	0	1-81
SCHURZ PHS INDIAN HOSPITAL SCHURZ NV 89427	NV-22 *	11	0	0-55	.	.		.	.		.	.		.	.		.	.		1	0	0-100	1	0	0-99
SO LYON COMMUNITY HOSPITAL YERINGTON NV 89447	NV-23 *	122	17	8-22	5	80	11-82	6	33	4-67	.	.		5	0	5-72	5	80	13-84	10	10	2-50	16	6	8-49
SPARKS FAMILY HOSP SPARKS NV 89431	NV-24 *	770	11	7-14	59	19	14-38	15	27	12-56	14	7	5-48	37	24	10-36	23	22	19-57	22	23	9-46	65	14	8-27
ST MARY S HOSP RENO NV 89520	NV-25	1917	11	8-14	130	21	16-35	49	37	17-43	47	9	9-33	57	19	13-35	86	34	26-48	42	19	7-33	130	13	11-26
ST ROSE DE LIMA HOSPITAL HENDERSON NV 89015	NV-26 *	480	12	7-15	23	17	10-45	19	16	11-50	18	11	3-38	29	21	10-41	20	30	21-62	9	33	2-53	53	26	9-32
U.M.C. OF SOUTHERN NEVADA LAS VEGAS NV 89102	NV-27 *	2228	15	8-15	205	34	15-31	81	23	16-37	39	36	10-38	109	30	14-30	111	45	29-48	62	23	9-32	178	27	10-24
VALLEY HOSPITAL MEDICAL CE LAS VEGAS NV 89106	NV-28 *	2376	14	8-14	158	24	13-30	85	36	16-36	41	24	5-30	114	29	14-31	117	30	26-45	37	22	6-33	258	25	13-26
WASHOE MEDICAL CENTER RENO NV 89502	NV-29 *	2959	13	9-15	266	28	19-34	92	37	19-38	61	23	9-31	111	23	14-30	176	38	28-45	67	18	7-29	184	21	14-28
WILLIAM BEE RIRIE HOSPITAL EAST ELY NV 89315	NV-30	127	12	6-18	5	60	7-77	.	.		6	33	1-63	3	0	1-81	9	44	13-69	5	20	0-70	13	8	4-47

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
ADELSON HOSPICE-NATHAN SPE LAS VEGAS NV 89109	2	100	7-96	.	.		.	.		.	.		3	100	4-84	2	100	1-89	.	.		.	.		2	50	0-94
BATTLE MOUNTAIN GEN HOSP BATTLE MOUNTAIN NV 89820	1	0	0-99	.	.		.	.		.	.		.	.		1	0	0-100	.	.		.	.		.	.	
BOULDER CITY HOSPITAL BOULDER CITY NV 89005	5	0	2-71	5	0	9-79	2	0	0-98	.	.		22	0	0-27	9	0	0-77		.		37	3	1-18	4	0	0-99
CARE UNIT HOSP OF NEVADA LAS VEGAS NV 89102				.	.		.	.		.	.		.	.		.	.		.	.		.	.			.	
CARSON-TAHOE HOSPITAL CARSON CITY NV 89701	7	43	5-67	6	17	6-71	27	15	2-28	5	0	0-100	82	2	1-12	65	3	0-15	4	0	0-100	72	1	1-12	37	0	0-21
CHURCHILL PUBLIC HOSPITAL FALLON NV 89406	5	20	4-73	3	33	10-92	2	50	0-94		.		24	0	0-25	6	0	0-66	1	0	0-100	41	2	1-16	3	0	0-98
COMMUNITY HOSPITAL OF NO L NORTH LAS VEGAS NV 89030	1	63	6-66	15	40	18-65	30	7	2-25	2	0	0-100	70	10	2-15	29	10	1-24	4	0	0-100	67	10	1-13	21	5	0-35
DESERT SPRINGS HOSPITAL LAS VEGAS NV 89119	13	46	9-60	8	13	7-66	42	7	3-24	2	0	0-100	176	5	3-10	59	3	1-16	6	0	0-99	256	3	2-8	236	0	0-5
ELKO GENERAL HOSP ELKO NV 89801	.	.		3	67	5-86	11	0	1-44	.	.		38	8	1-19	19	0	0-34	1	0	0-100	19	0	1-30	24	0	0-32
GROVER C DILS MED CTR CALIENTE NV 89008	1	100	1-97	1	0	1-97	.	.		.	.		5	0	0-77	3	0	0-96	.	.		6	0	0-65	.	.	
HUMANA HOSPITAL SUNRISE LAS VEGAS NV 89109	34	21	9-44	30	50	20-55	83	6	3-17	57	0	0-29	342	5	2-8	162	3	1-11	24	0	0-85	368	5	2-7	215	1	0-5
HUMBOLDT GENERAL HOSPITAL WINNEMUCCA NV 89445	1	0	1-98	.	.		.	.		.	.		10	10	0-51	.	.		.	.		6	0	0-69	.	.	
LAKESIDE COMMUNITY HOSP INCLINE VILLAGE NV 89450	1	0	0-99	2	50	2-90	1	0	0-100	.	.		5	0	0-72	2	0	0-100	.	.		9	0	0-55	10	0	0-88
MT GRANT GENERAL HOSPITAL HAWTHORNE NV 89415	2	50	0-90	.	.		.	.		.	.		7	14	0-70	3	0	0-90	.	.		4	0	0-96	6	0	0-81
NYE GENERAL HOSPITAL TONOPAH NV 89049	2	0	3-92		.		1	0	0-100	.	.		3	0	0-96	.	.		.	.		6	0	0-76	3	0	0-94
OWYHEE PHS INDIAN HEALTH S OWYHEE NV 89832	.	.		.	.		1	0	0-99	.	.		.	.		.	.		.	.		1	0	0-100	2	0	0-100
PERSHING GENERAL HOSP LOVELOCK NV 89419	1	0	0-98	1	0	0-98	.	.		.	.		1	0	0-100	1	0	0-98	.	.		4	0	0-90	.	.	
SCHURZ PHS INDIAN HOSPITAL SCHURZ NV 89427	.	.		.	.		.	.		.	.		.	.		1	0	0-100				2	0	0-100	2	0	0-100
SO LYON COMMUNITY HOSPITAL YERINGTON NV 89447	4	25	2-76	2	50	3-91	.	.		1	0	0-100	10	20	1-46	.	.		.	.		12	17	0-41	3	0	0-99
SPARKS FAMILY HOSP SPARKS NV 89431	3	0	3-84	2	50	1-89	24	13	2-28	3	0	0-100	85	6	2-12	47	0	0-19	5	0	0-100	48	2	1-16	67	1	0-11
ST MARY S HOSP RENO NV 89520	15	7	7-54	13	23	14-64	73	5	4-19	3	0	0-100	172	6	2-9	30	0	0-23	36	0	0-68	166	8	2-9	213	1	0-5
ST ROSE DE LIMA HOSPITAL HENDERSON NV 89015	7	57	4-66	2	0	1-89	26	0	1-26	1	0	0-100	43	5	1-16	20	0	0-40	5	0	0-100	50	8	1-14	48	0	0-14
U.M.C. OF SOUTHERN NEVADA LAS VEGAS NV 89102	23	26	6-46	16	56	18-65	61	8	3-19	4	25	0-100	155	11	2-11	77	3	1-14	13	0	0-100	238	4	2-8	90	3	0-10
VALLEY HOSPITAL MEDICAL CE LAS VEGAS NV 89106	27	22	10-49	13	31	17-67	77	12	6-21	12	0	0-100	209	7	2-9	133	5	1-11	17	0	0-96	316	8	2-7	103	2	0-8
WASHOE MEDICAL CENTER RENO NV 89502	39	10	9-42	13	46	17-67	63	5	3-20	13	0	0-100	247	8	3-9	148	2	1-11	19	0	0-98	355	4	3-8	132	2	1-7
WILLIAM BEE RIRIE HOSPITAL EAST ELY NV 89315	2	0	1-90	.	.		5	0	0-71	.	.		13	8	0-43	5	0	1-68	2	0	0-100	9	0	0-62	2	0	0-100

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/Location	Comment/Reference	Overall			High Risk Diagnostic Categories																				
					Cancer			Stroke			GI Catastrophes			Severe Chronic Heart Disease			Severe Acute Heart Disease			Metabolic & Electrolyte Disturbances			Pulmonary Disease		
		Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
WOMENS HOSPITAL LAS VEGAS NV 89104	NV-31 *	19	0	0-32	3	0	1-82	.	.		1	0	0-99	.	.			.			.		1	0	0-98

*Written Comments Not Submitted.

Medicare Hospital Mortality Information

HOSPITALS Name/ Location	High Risk Diagnostic Categories									Low Risk Diagnostic Categories																	
	Renal Disease			Sepsis			Severe Trauma			Ophthalmology			GI Disease			Urology			Gynecology			Low Risk Heart Disease			Orthopedics		
	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent	Number of Patients	Actual Mortality Rate/Percent	Range of Predicted Mortality Rate/Percent
WOMENS HOSPITAL LAS VEGAS NV 89104	.	.		.	.		.	.		.	.		1	0	0-100	.	.		8	0	0-100	.	.		1	0	0-100

*Written Comments Not Submitted.

The Nathan Adelson Hospice

"A NOT FOR PROFIT COMMUNITY ORGANIZATION"

BOARD OF TRUSTEES
Merv Adelson
Co-Chairman

Pearl Adelson
Co-Chairman

Irwin Molasky
Co-Chairman

Renny Ashleman
Donald H. Baepler
Jerome G. Blankinship
Al Benedict
Eli Boyer
David Brandsness
Sharon Brandsness
Monterey Brookman
Irwin Buchalter
Anthony Carter, M.D.
Don Digilio
Thalia Dondero
Lovee DuBoef
Harold Erickson
Hank Greenspun
Mel Hecht
Charles Kilduff, M.D.
Jerry Kring
Samuel Lionel
Ron Lurie
Jerome Mack
Marydean Martin
Mary Ann Michel
Susan Molasky
Mike O'Callaghan
Owen Peck, M.D.
Lee Rich
Allard Roen
Willis Russell, M.D
Arthur Sandoval
Art Smith
William K. Stephan, M.D.
Muriel Stevens
E. Parry Thomas
Richard Thomas
David Zenoff

Nathan Adelson Hospice is a Medicare Certified Hospice and an Acute Care Specialty Hospital for the terminally ill.

We, at Nathan Adelson Hospice, believe that hospice care is a sensitive and specialized area, and in combination with other team members, offers a program of living to the patient/family unit that will allow them to maintain as much control over their lives as can be allowed. Members of the interdisciplinary team are concerned with psychological and spiritual needs as well as physical and social problems. We believe that excellence in pain control and the management of other disturbing symptoms can be achieved only when there is support of the total person and this requires time and attention. The conspiracy of silence which too frequently surrounds the terminally ill, heightens anxiety, strains relationships, enhances isolation and prevents communication with loved ones. The staff aims to "meet the patients where they are, rather than where the staff feels they should be."

Nathan Adelson Hospice provides twenty-four hour a day care and encourages family participation in patient care as an important mechanism for encouraging communication, expressing feelings and coming to terms with the reality of an impending loss.

It is our hope to help change attitudes and promote changes toward the care of the individual in the last phases of incurable disease.

Rita Rosanski RN BS

Rita Rosanski, R.N., B.S.,
Administrator

4141 S. Swenson Street • Las Vegas, Nevada 89119 • (702) 733-0320

ATTACHMENT 5

Worksheet 1: Analysis of Reporting Errors

Diagnostic Category	Deaths Reported by HCFA (One pt. not ours)		Deaths Verified by Hospital* (One pt. not ours)	
	In-hospital	Post-hospital	In-hospital	Post-hospital
CA -- Cancer	126	6	159	6
CE -- Cerebrovascular Accidents	1		1	
GC -- Gastrointestinal Catastrophes	3		4	
GI -- Gastrointestinal Disease			1	
GU -- Urologic Disease				
GY -- Gynecologic Disease				
HL -- Low Risk Heart Disease				
HM -- Severe Chronic Heart Disease	1	1	1	1
HS -- Severe Acute Heart Disease			1	
ME -- Metabolic/Electrolyte Disturbances	11	1	2	1
OP -- Orthopedic Disorders	1			
PN -- Pulmonary Disease	5		2	
RN -- Renal Disease	2			
SE -- Sepsis				
TR -- Severe Trauma				
OP -- Ophthalmalogic Disease				
UN -- Other Diagnoses	22	1	2	1
Total -- All Categories	172	9	172	9

NOTES: In the Deaths reported by HCFA, tabulate the number of deaths assigned to each diagnostic category on the individual care listing. In-hospital deaths are those patients whose date of discharge is the same as the date of death; post-hospital deaths are those patients whose date of death is after the date of discharge. Verified deaths should include those patients who are known to have died or whose status 30-days after discharge from the hospital cannot be determined. Verified deaths should also exclude patients that the hospital does not believe were ever admitted to the hospital.

CARSON-TAHOE HOSPITAL
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POST OFFICE BOX 2168
CARSON CITY, NEVADA 89702-2168
702 / 882-1361

CARSON VALLEY EMERGENCY
HEALTH CENTER
1538 HIGHWAY 395
POST OFFICE BOX 1678
GARDNERVILLE, NEVADA 89410-1678
702 / 782-8181

CARSON-TAHOE HOSPITAL

October 27, 1987

William L. Roper, M.D.
Administrator
Health Care Financing Administration
6300 Security Blvd.
Meadows East
Baltimore, Maryland 21207

Medicare Provider # 29-0019

Dear Dr. Roper:

Thank you for the opportunity to respond to the release of data on hospital mortality statistics for January 1986 through January 31, 1987.

We have carefully reviewed the data. It is to be noted that the mortality rates in all specified categories are within the range of predicted mortality for a hospital of our size and given our service area demographics. Within the category of pulmonary disease, however, we recognize that the statistics are at the upper edge of the acceptable range. Therefore, we are conducting a special review of all information provided to assure that the data is an accurate reflection of the actual results of care in our facility. We are committed to providing quality care and where indicated will use this data to assist in identifying opportunities to improve.

Thank you for the opportunity to attach this response to our data.

Sincerely,

C. Thomas Collier
Administrator

CTC:sgm

Community Hospital
OF NORTH LAS VEGAS

October 27, 1987

Health Care Financing Administration
Health Standards and Quality Bureau
Hospital Mortality Information
P. O. Box 26684
Baltimore, Maryland 21207

Attention: Dr. William L. Roper

Dear Dr. Roper:

Thank you for the opportunity to respond to the HCFA Mortality data prior to its publication. We feel our comments will put your information into a clearer perspective.

Community Hospital operates a 28-bed Geriatric Care Unit which specializes in the care of nursing home patients who usually have multiple medical problems and who are, on an average, much older and more informed than the general Medicare population. At least 50% of our Medicare admissions were nursing home patients, many of whom were admitted more than once during the year due to acute episodes of multiple chronic problems. Ninety percent of the deaths were institutionalized patients whose average age was 80 years.

Of the 128 deaths studies, 52 had "do not resuscitate" orders in compliance with the wishes of the patient or family. In these cases, death is the expected outcome and hospital care is focused towards patient comfort.

If you studied only those cases where curative care was rendered, our overall mortality rate falls to 11.3% (76/674), at the low end of the 10-18% rate expected by HCFA. Individual DRG mortality rates would decline correspondingly.

Many of these admissions reflect the nursing homes, physicians, and even family members unwillingness to let the patient die either at home or at the nursing home for fear that another party might accuse them of neglect or not doint "everything". HCFA acknowledged the concern that hospitals might discharge a patient to avoid being associated with the death. In actuality, physicians, nursing homes and families send these patients to a hospital because they want to avoid the stress, burden, and possible legal liability.

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An American Healthcare Management, Inc. Facility

Finally, you should note that HCFA counted multiple admissions by a single patient as a single admission. A patient who died after his 5th admission is reflected as a 100% mortality rate even though only 20% of the discharges resulted in death. This methodology artificially raises the mortality rate. for all hospitals. It disproportionately raises the mortality rate at hospitals such as ours who specialize in treating patients with chronic problems or multiple illnesses.

Considering all these factors, we feel that the data, when properly explained, reflects the fine quality of care provided to all patients at Community Hospital.

Sincerely,

Brian Bentley

Brian S. Bentley
Administrator

BSB/ssy

GROVER C. DILS MEDICAL CENTER
P.O. Box 38
Caliente, Nevada 89008
(702)726-3171

October 9, 1987 Hospital ID # 290027

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O. Box 26684
Baltimore, Maryland 21207

Gentlemen:

We submit the following comments in response to the 1986 mortality information which HCFA plans to publish:

1. Statistics from an eight bed rural hospital can be highly misleading. The 100% mortality rate on renal disease represents only one patient. The sample is to small to produce any meaningful information.

2. Of the six patients identified, ages ranged from 81 years to 88 years. Publication should note that mortality was confined to the old-old population, as distinct from the young-old Senior Citizen group.

3. Of the six named cases, three were admissions from Intermediate Care, indicating severe chronic conditions and comorbidities.

In summary, this data is not significant. Potential harm could result in misinterpretation. Taxpayers would be better served if publication costs were redirected to increased reimbursement for Frontier health facilities.

Yours truly,

Dorine Soper

Dorine Soper
Administrator

cc: file

3186 Maryland Parkway
P O Box
Las Vegas, Nevada
89
Telephone (702)

Humana Hospital Sunrise

October 26, 1987

William L. Roper, M.D.
Administrator
Department of Health and Human Resources
Health Care Financing Administration
6325 Security Blvd.
Baltimore, MD 21207

RE: Provider #290003

Dear Dr. Roper:

Thank you for the opportunity to comment on the hospital specific mortality data provided to us in September, 1987. Humana Hospital Sunrise supports the Health Care Financing Administration's desire to educate those interested in Medicare quality issues. While the program is in the early developmental stages, and the measurement of data will be refined as difficulties in interpretation arise, it is clearly an example of the type of quality measurements to come.

This information is helpful in our hospital's ongoing quality assurance program. Our program includes regular and complete review of all admissions which result in patient mortality and morbidity as well as the other relevant components of an outstanding quality assurance and utilization review program. In addition, we have recently received a full three year accreditation from the JCAH and full accreditation from your own organization following a Medicare JCAH Validation Survey.

Since these raw numbers reflect deaths which occurred in only a limited segment of the hospital's patient population (the elderly) and are not adjusted for severity of illness or other factors which may affect patient outcome, they must be considered in that context and should serve as only one of numerous indicators used to review the quality of services provided at each hospital. While this statistical data is useful in this format for professional evaluation, consumers should be informed as to the limited scope of these numbers and be cautioned about drawing any conclusions from the data about the quality of a hospital's services.

As in all deaths occurring in hospitals, a complete internal review is necessary to determine the appropriateness of the care and inevitability of the outcome. These reviews provide information to physicians and other medical providers about improvements which can be made in treating future patients. Thus, the use of raw mortality statistics is helpful to professionals in identifying patient trends and treatment outcomes. Ultimately, these statistics may assist health care consumers in understanding the extensive quality control systems in place in the hospital.

Humana Hospital Sunrise's Medical Records and Quality Assurance Departments have reviewed the data. Since some of the deaths occurred outside the hospital, we have been unable to completely validate this data. Generally, we have found it to be consistent with our hospital records. Unfortunately, in most cases the number of patients in a particular category is too small to provide a valid statistical analysis. The predicted ranges are extremely broad, and it would seem inappropriate to consider them acceptable or unacceptable as standards without the ability to verify the method by which they were developed.

We hope this information will be helpful in attempting to refine the collection and reporting of raw hospital data. In addition, our hospital will do everything possible to assist our community in understanding how this data can best be used to improve health care services.

Sincerely,

Donald L. Stewart
Executive Director

DLS/bjs

HUMBOLDT GENERAL HOSPITAL
Provider # 29-0016
118 East Haskell / Winnemucca, Nevada 89445 / (702) 623-5222

COMMENTS ON THE HCFA MORTALITY DATA, OCTOBER 26, 1987

DATA VERIFICATION

In its preparation of hospital mortality statistics for 1986, the Health Care Financing Administration (HCFA) has at its disposal a vast array of information and resources to process that information which is generally unavailable to a small rural hospital.

HCFA, using a statistical modeling technique called "logistic regression", developed a mortality rate for Medicare beneficiaries for Humboldt General Hospital of 18% with a range of predicted mortality rate of 7% to 26%. These are adjusted rates, that is, the rates are adjusted for the following patient characteristics: age and sex of the patient, the number of prior hospitalizations within the year, whether the patient was transferred from another hospital, and whether the patient has other complicating illnesses.

Without detailed information concerning the billing data available to HCFA or the use of that data and the details of the "logistic regression" model, it is difficult if not impossible to verify the accuracy of the diagnostic or other data used in the HCFA analysis. However, our own analysis yields an unadjusted mortality rate for Medicare beneficiaries of 11.6% with a range of predicted mortality of 5.7% to 17.5%.

The data used by HCFA indicates that there were 60 Medicare admissions to Humboldt General Hospital of which 11 died within 30 days of admission. All 11 died while still a patient of the hospital. Our own records indicate that 112 Medicare admissions occurred in 1986, which includes multiple admissions for individual patients. The HCFA count does not include multiple admissions, so, presumably, the discrepancy reflects those multiple admissions of the individual beneficiaries to different hospitals or Humboldt General Hospital. According to our research, HCFA overlooked two additional deaths. HCFA also included in its count, beneficiaries who were admitted, but not eligible for Medicare payment. As a result of our analysis, we have no way of verifying the accuracy of the HCFA data base as to the number of Medicare patients treated at Humboldt General Hospital. The data provided by HCFA provides only a listing of the deaths and not the live discharges. It is impossible for Humboldt General Hospital to determine the percentage of patients dying after discharge, as information concerning death after discharge is not included in the patient's medical record.

INTERPRETIVE REMARKS

In one of the diagnostic categories, cancer, the hospital's actual mortality rate falls outside of the range of the predictive mortality rate. After correcting for the errors in the recording of deaths as mentioned earlier, the number of categories in which the actual mortality rate is outside the range of the predicted mortality rate remains the same.

UNIQUE SERVICES RESULTING IN HIGHER THAN AVERAGE MORTALITY

There are no specifically identified unique services at Humboldt General Hospital such as hospice care etc. that would result in a higher than average mortality rate. However, the community practice continues to be to utilize the hospital as a hospice for the terminally ill and elderly. As an example, the records of 3 of the cases specifically state that the patient "came to the hospital to die."

Our alleged cancer mortality rate of 100% reflects the fact that these patients were in the end-stage process of their disease and were those who used the facility as a hospice. The mortality of these cancer patients, indeed of all 11 patients was not unexpected.

RESULTS OF PRELIMINARY MEDICARE RECORD REVIEW

As indicated earlier, HCFA provided us with a listing of 11 deaths within various diagnostic categories. On review of the medical records of these individuals, we have no argument with HCFA, as we were able to confirm the principal diagnosis codes, dates of admission, and dates of discharge (death) of the patients, and the other parameters listed. However, at this point we feel compelled to point out that there is a difference between principal diagnosis and cause of death lest the public be mislead. The principal diagnosis, per HCFA rules and reimbursement purposes, is the underlying cause for admission and is not necessarily the cause of death. For example, for one of the patients on our listing, his principal diagnosis is "hypovolemia" or dehydration. This information alone, as presented in the data, may mislead the public into believing that the hospital was unable to successfully treat a dehydrated patient. However, upon further examination of the medical record, the cause of the dehydration was due to the patient's end-stage colon cancer. This difference in principal diagnosis and cause of death, as listed in the death certificate, is an example of the discrepancy found in 4 of the 11 deaths listed by HCFA.

COMMENTS ON STATISTICAL METHODS

We would like to comment on the validity of making statistical inferences from small sample sizes. For "all causes" diagnostic category, the sample size is 60 Medicare admission; however, for the individual diagnostic categories, the sample sizes were 10 or less Medicare admissions. Based on these small sample sizes, HCFA's range of predicted mortality rates provided some unusual results. For example, for the diagnostic category "renal disease", the predicted mortality rate for Humboldt General Hospital is from 1% to 98%. We do not find statistical results of this magnitude in range to be of much use. Such wide ranges occur in 7 of the 10 diagnostic categories provided.

Lastly, the "logistic regression" statistical model implies a causal relationship between the patient characteristics listed earlier and mortality, which is a measure of quality of care. We do not argue the point that there is or may be a causal relationship, however, the HCFA analysis may have left out many other aspects of patient care and characteristics which might affect a hospital's mortality rate, such as severity of illness.

HCFA, is its letter to hospitals dated September 21, 1987 states that "HCFA will make clear that the information on its own is not a complete measure of the quality of care at an individual hospital." "...we can not and do not recommend the use of the information by itself to make judgements about the quality of care in an individual hospital or to make comparisons among hospitals." Indeed, there are many other quality indicators for a hospital other than mortality rates. However, we fear that the general public will be mislead to believe that this is the only indicator of the quality of health care.

In conclusion, we would like to paraphrase DesCartes: There are inaccuracies, damn inaccuracies and federal statistics.

Pershing General Hospital
And Nursing Home

P.O. Box 661
855 6th Street
Lovelock, Nevada 89419
(702) 273-2621

October 23, 1987

Health Care Financing Administration
Health Standards & Quality Bureau
Hospital Mortality Information
P.O.Box 26684
Baltimore
Maryland 21207

RE: Mortality Statistics
Medicare Provider # 29-0011

Gentlemen:

Comments are as follows:

The method for determining mortality rates is inadequate and doesn't reflect the quality of medical care patients receive.

The consumers will draw inaccurate conclusion from the data and will view this data as a guide to the quality of health care facilities.

Negative views from the newspaper.

Should take severity of illness into account.

Public will not understand what the statistics mean.

Mortality data cannot provide complete measurement of health care quality.

See comments on Statistical Data Sheet.

Sincerely

Myra B. Garland

Myra B.Garland
Administrator

Encl:
MBG:kk

HOSPITAL ID NUMBER = 290011

11-18-86

PATIENT ID NUMBER (HIC)	SURNAME (FIRST 6 LTRS)	DIAGNOSTIC CATEGORY	AGE	SEX	DATE OF ADMISSION	DATE OF DISCHARGE	DATE OF DEATH	PRINCIPAL DIAGNOSIS	PRINCIPAL PROCEDURE
[redacted]	[redacted]	UN	070	M	11/14/86	11/16/86	11/30/86	94520	SNF

COMMENTS:

Date of death is incorrect

The principal diagnosis does not reflect the cause of death.

NV 21.1

PERSHING GENERAL HOSPITAL & NURSING HOME

Myra B. Garland

MYRA B. GARLAND, ADMINISTRATOR

SAINT MARY'S HEALTH CARE CORPORATION

October 26, 1987

W.J. Van Ry
President And
Chief Executive Officer

Department of Health
and Human Resources
Health Care Financing
Administration
Washington, D.C. 20201

Re: Mortality Data

Dear Sir:

Thank you for the opportunity to respond to the 1986 Medicare mortality rates for Saint Mary's Regional Medical Center (formerly Saint Mary's Hospital). Since receiving the report dated September 21, Saint Mary's staff has had the opportunity to review the data.

The Director of Clinical Data Services and Department Head of Medical Records have validated that, with minor exceptions, the data is accurate. As evident in the report, Saint Mary's fell well within the predicted mortality ranges set for all diagnostic categories. Saint Mary's has implemented stringent credentialing criteria and close monitoring programs to assure that we maintain a high-quality medical staff. Prior to being granted the privilege of practicing at Saint Mary's, physicians must be approved by four professional committees. Their appointment to our staff is followed by continuous peer review and quality assurance programs, which enable us to maintain our high standards of care.

Also contributing to Saint Mary's excellence is our active quality assurance program in which all mortalities are reviewed by appropriate medical staff on an on-going basis to assure the continued provision of high-quality care. Not only are all mortalities evaluated, but both past and present charts are randomly reviewed to determine appropriateness of care.

The majority of the cases included in the report were reviewed by Saint Mary's Quality Assurance Department as well. Two diagnostic categories were reviewed, in-depth, by Quality Assurance and appropriate physicians. These categories were Sepsis and Low-Risk Heart Disease.

235 West Sixth Street • Reno, Nevada 89520 • Telephone (702) 789-3003

Of the 13 Sepsis admissions, there were only three deaths, all of which were reviewed by Saint Mary's Infection Control Nurse. In two of the cases, infection was clearly present in the patient upon admission.

In the category of Low-Risk Heart Disease, your report states that 166 patients were admitted to Saint Mary's, and 13 patients died. All of these have been reviewed by a cardiologist, who recognizes only four as being validly placed in the Low-Risk Heart Disease category.

As required by Medicare coding guidelines, these patients were categorized as "low-risk" because of their principal admitting diagnosis, which is often only a symptom of a severe, chronic, disabling condition. For example, one patient was specifically admitted for evaluation of a slowed heart rate, which placed him in a "low-risk" category. However, the patient's secondary diagnoses were chronic, disabling conditions, which eventually led to his death. Our concern is that because the categorization used does not reflect these secondary diagnoses, the cases are misleadingly placed in "low-risk" categories.

For these and similar reasons, nine of the 13 cases classified in the Low-Risk Heart Disease should have been categorized as "severe-acute", according to the reviewing cardiologist. Had these cases been classified using all diagnoses and a severity of illness rating, our mortality rate in Low-Risk Heart Disease would have been significantly reduced.

Irrespective of these changes that we feel should be made, Saint Mary's fell within the predicted mortality ranges for all diagnostic categories, including Sepsis and Low-Risk Heart Disease. We believe one of the reasons for our low cardiac mortality rate is our highly-qualified cardiology staff and advanced diagnostics in heart disease. We are proud of this center of excellence at Saint Mary's Regional Medical Center.

Saint Mary's also had a particularly low mortality rate for severe trauma. Over the past two years, Saint Mary's has strengthened its commitment to providing trauma care to the community. In 1986, Saint Mary's upgraded the Emergency/Trauma Department to better accomodate severe trauma patients. An expanded trauma resuscitation room, dedicated only to trauma patients, features in-room radiology capabilities, the latest in monitoring systems, and the capabilities for emergency surgery. When emergency/trauma facilities were upgraded, the trauma team response was fine tuned to integrate all of the necessary clinical departments in the treatment of critically injured patients.

Again, thank you for the opportunity to present this response. The data with which we worked enabled us to confirm the success of our quality assurance program.

If you have any further questions, please call Debbie Likes, Director of Clinical Data Services at (702) 789-3155.

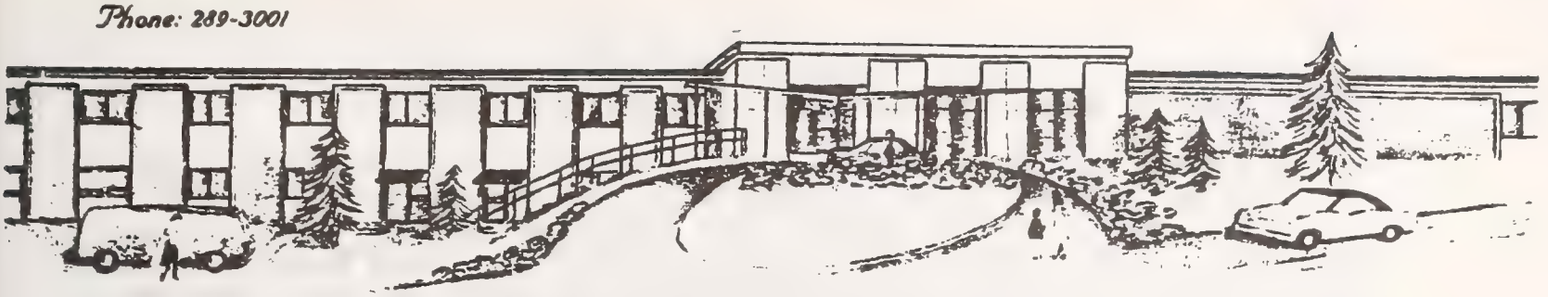
Best regards,

W. J. Van Ry
President and
Chief Executive Officer

Susan Buchwald, M.D.
Chief of Staff

WVR/SB:fs

Area Code (702)
Phone: 289-3001



The William Bee Ririe Hospital

1300 Avenue H
Ely, Nevada 89301

October 23, 1987

William L. Roper, M.D., Aministrator
Department of Health and Human Services
Health Care Financing Administration
Washington, D.C. 20201

Dear Dr. Roper:

The Medical Staff of the William Bee Ririe Hospital in Ely, Nevada, again takes exception to the publication of the statistics that you sent to us on the 21st of September.

We, of course, had the distinction of being on the hit list for the initial set of statistics published in 1986. Certainly, none of us who have been on the firing line for any length of time would want to take exception with dissemination of information, however, the statistics as compiled by your department do a great disservice to the small rural not-for-profit community hospital. Once again, we are tainted with the broad brush of statistics to appear not capable of managing these problems. The charts have been carefully scrutinized in each of these patients. All of them were reviewed by the entire medical staff at the utilization review conference and found to have died of irreversible terminal causes.

The patients as a group, more than 66% of them had been seen in consultation by two members of the medical staff, consulted with the family and had orders to not resuscitate. Further reading these charts, the one patient had the consultation and discussion made, however, she died before the order "do not resuscitate" could be written. The patient who was in the hospital too short a time to have a consultation made leaves us with the patient in which there was a discussion with the family and, despite being confronted with the facts, would not consent to a "do not resuscitate" order and the patient was transferred to another facility and died outside the hospital. Therefore, this percentage would be 86 percent of the patients "do not code".

Most importantly, our hospital statistics show that we had 187 Medicare admissions, 60 more than the 127 on which you based our mortality statistics.

Another question that is raised in my mind is, since these patients are reported for thirty days following their admission to our facility, are allowances made for the fact that two of these patients were discharged from other facilities and admitted to our facility for terminal care. In other words, were those two included in the mortality statistics for that facility as well as for this one? Therefore, these were cases, were it available, which would probably have been in a hospice and hopefully we all know what the mortality rate is for a hospice.

Once again, I think that the broad brush of statistics have done a grievous disservice to metropolitan hospitals and to small rural hospitals by generating statistics which can be construed to reflect adversely on unsuspecting and non-deserving facilities. Similarly, it would appear to cast aspersions on the abilities of diligent medical staffs and to allow no room for consideration for severity of illness which indicates of our patients that they were so ill they were, by concensus, felt not to be patients to be resuscitated should they die.

Yours sincerely,

WILLIAM BEE RIRIE HOSPITAL

John Maxey

JOHN MAXEY, ADMINISTRATOR

JM/bc

TECHNICAL APPENDIX

METHODOLOGY

The Data Base

The basis for the present analyses is the MEDPAR file assembled and updated quarterly by the Bureau of Data Management and Strategy in HCFA. This file is constructed from information on hospitalizations submitted to HCFA by hospitals through fiscal intermediaries and from data obtained from the Social Security Administration describing certain characteristics of the patients including age, sex, race and the date of death. Because each Medicare beneficiary is assigned a unique health insurance claim number (HIC), it is possible to link hospitalizations longitudinally to ascertain prior and readmissions, and the date of death whenever and wherever it occurred.

The process of data management consisted of the following steps:

(1) admissions to acute-care hospitals were selected, as was the array of data needed to characterize the patient and the hospitalization;

(2) the first- and last-occurring hospitalizations, their nature as out- or in-transfers, and the number of admissions prior to the last of a given patient in a given calendar year were identified,

(3) patients were assigned to major diagnostic categories by means of the principal diagnoses, their additional diseases identified on the basis of the secondary diagnoses, of which there were up to four for each hospitalization, and separate files were written for each diagnostic category for the first- and last-occuring hospitalization respectively. Analyses were performed on the separate files. For the purpose of assessing overall mortality rates, results obtained for the individual diagnostic categories were aggregated. As a check on the programming, a summary file of the hospital-level data was also written and analyses of this summary file were compared with the results of aggregation of the files for the diagnostic categories.

In this project, the basis used for the assessment of mortality rates was death within 30 days of admission. However, because readmissions can occur within the interval between admission and 30 days thereafter, to avoid multiple counts of deaths, the last-occurring admission in a calendar year was chosen because it is associated with the highest risk of death. The prior experience of the patient was taken into account by identifying whether the last-occurring admission represents a transfer from another acute care facility and by identifying the overall number of prior hospitalizations in the year.

The composition of the diagnostic categories and of the comorbidities was determined in part empirically and in part on the basis of clinical judgment. The diagnostic categories used in these analyses were chosen to follow medical disciplinary lines and to report principally on high-risk admissions but also on certain low-risk admissions. The empirical testing consisted of the computation of the relative risk of death associated with the category or comoribidity compared to that isn a reference population by using standard statistical techniques (The Cox Proportional Hazards Model). A committee of clinical advisors was assembled to review alternatives and to assist in the design of an appropriate classification scheme. The approach adopted for the present analyses is the result of their deliberations and advice.

A list of the ICD9-CM codes included in each diagnostic category and comorbidity is found on the following pages.

Analytic Techniques

The principal analytical tool was logistic regression. Because the diagnostic categories are mutually exclusive, the analyses to ascertain the influence of patient characteristics (age group, sex, comorbidities, prior admissions and transfer status) were carried out separately for each category. If p is the probability of a given patient dying within 30 days of admission, its dependence on the patient's characteristics x_i (covariates) is specified by the logistic model as

$$\log \frac{p}{1-p} = \Sigma_i b_i^* x_i .$$

Once the coefficients b_i have been computed, it is possible to estimate the predicted probability of dying for that patient, and, by averaging over all the patients whose treatment in a given hospital is being evaluated, the predicted mortality rate for that hospital for the individual diagnostic category as well for all categories taken together.

The second quantity required of the analyses was an estimate of the uncertainty in the mortality rate expressed as a range of predicted rates encompassing a specified proportion (95%) of the probable values. For this it is necessary to compute the variance of the probability of death at a given hospital. This quantity is conventionally taken to consist of the sampling variance and of the variance due to the uncertainty in the estimates of the regression coefficients. The latter, given the very large populations used to estimate the coefficients, is negligible compared to the former, and was confirmed to be so by direct calculation.

	DIAGNOSIS	ICD-9-CM CODES*
High Risk		
CA	Cancer	141-160, 162-172, 174-209
CE	Stroke	430-432, 434, 436
HS	Severe acute heart disease	410, 427.1, 427.4, 427.5, 441.0, 441.1, 441.3, 441.5, 441.9, 785.51
HM	Severe chronic heart disease	398.91, 402.01, 402.11, 402.91, 425, 428, 518.4
GC	Gastrointestinal catastrophes	551, 557, 560.0, 560.2-560.9, 570, 572-572.7, 573.4, 567, 578.0, 578.9
ME	Metabolic and electrolyte disorders	250.01-250.4, 251.0, 251.1, 255.4, 276
PN	Pulmonary disease	415.1, 416.0, 480-483, 485-516, 518-519, except 516.1, and 518.4
RN	Renal disease	580-590 except 580.81 and 590.81
SE	Sepsis	DRG: 416, 417
TR	Severe trauma	806, 808.43, 808.53, 820, 821, 828, 850.2, 850.4, 851.1-851.7, 852, 839.0-839.5, 860-867, 887, 897, 900.0, 901-904, 926, 927.0, 928.0, 929.0, 942.3, 942.4, 942.5, 946.3-946.9, 947.1-947.9, 948.2-948.9, 952, 958.0, 958.1, 958.4, 958.5
Low Risk		
EY	Ophthalmologic disease	360-379
GY	Gynecologic disease	617-629
HL	Low risk heart disease	393-429, except 415.1 and 416.0 and cases in categories HS and HM
GI	Gastrointestinal disease	530-579, except 577.0, 573.1 and 573.2 and cases in category GC
GU	Urologic disease	593-609
OP	Orthopedic conditions	712-739, 810-838, 840-848 (excluding cases in category TR)
UN	All other Conditions	All other ICD 9 CM Codes

*All of the above entries refer to ICD-9-CM codes except for the entries for Sepsis which are expressed in terms of Diagnosis Related Groups (DRGs).

COMORBIDITY	ICD-9-CM CODES
Cancer	141-160.9, 162-172.9, 174-208.9
Chronic liver disease	571-572.8
Chronic renal disease	582-583.9, 585-587
Chronic cardiovascular disease	412-414.9, 426-429.1
Chronic pulmonary disease	491-493.9, 496
Cerebrovascular degeneration/ chronic psychosis	290-290.9, 294-299.9
Hypertensive disease	402-405.99, 412-414.9
Diabetes	250.01, 250.1-250.9

(A comorbidity is taken to be present if its ICD-9-CM code appears on the bill as any one of the up to four addtional diagnoses beyond the principal diagnosis.)

The sampling variance for the computation of the range of predicted mortality rates is approximately estimated by

$$[P * (1-P)]/N$$

where P is the proportion who had died of persons at risk, N, within a specified diagnostic category (or overall).

The (negligible) component of variance of the overall mortality rate, due to the regression coefficients is estimated approximately by

$$\Sigma_i[\Sigma_k\Sigma_{k'}p_{ijk}*(1-p_{ijk})*p_{ijk'}*(1-p_{ijk'})*x_{ijk}*C(b_i)*x_{ijk'}]$$

where the subscripts k and k' refer to individual patients, i to the diagnostic category, and j identifies the hospital. However, given the potential systematic differences among hospitals in the severity of illness of their patients, in the quality of care they receive and other unidentified factors, a further contribution to the variance, the interhospital variance, must be considered. This constant term is estimated by

$$IHV = \Sigma_j(P_j-\bar{P})^2*(N_j/N_t)*(1-1/N_j)$$

where P_j is the predicted mortality rate, N_j the number of cases at risk at hospital j, N_t the total number of cases at risk, and $\bar{P}$ the average mortality rate, in the category under consideration. In computations using standardized residuals, the sampling variance was based on the observed mortality rate. The difficulty engendered by the occurrence of a zero mortality rate in some hospitals was overcome by a Bayesian approximation in which the mortality rate, D/N, was replaced by (D+1)/(N+2), where D is the number of persons who died and N is the number at risk.

The ranges of predicted mortality rates given in this publication encompass 95% of the probable values on a logit scale to ensure that the range neither goes below zero nor above 100%. On the logit scale, the range of predicted values, P, is given by

$$R = \log \frac{P}{1-P} \pm 1.96 \frac{\sqrt{[P*(1-P)/N + IHV]}}{P*(1-P)}$$

Retransformed to the linear scale, the upper end of the range is

$$\exp(R_+)/(1+\exp(R_+))$$

and the lower end of the range is

$$\exp(R_-)/\exp(1+R_-)$$

where R_+ is the value of R taken with the (+) sign and R_- is the value of R taken with the (-) sign.

Two subsidiary analytical approaches were employed both as checks of the programming and the computational algorithms, and as validation tools. One was multiple linear regression in which the unit of observation was the hospital, the dependent variable the proportion of persons at risk who had died, and the independent variables within the specific diagnostic categories the proportions of the persons at risk within given characteristics used in the logistic regression. Thus, a direct comparison of the results of the logistic and the linear models was made in the case of the specific diagnostic categories. However, whereas in the computations based on logistic regression results for overall mortality were simply obtained by aggregation of the specific categories (including "Other"), in multiple linear regression analysis of this quantity, the diagnostic categories were used as covariates, along with the other patient characteristics.

The other alternative approach consisted of indirect standardization of mortality rates. The population at risk in each diagnostic category was subdivided by age-group and sex into cells within which average mortality rates were calculated. These rates were then used to compute predicted mortality rates for the age and sex-mix of each hospital.

In addition to the above, cross-validation and boot-strap analysis were used to explore the properties of the models in selected diagnostic categories. In cross-validation, the entire population at risk is randomly divided into two equal subsets and regression analyses are performed on each subset. Predicted mortality rates for the hospitals are computed both directly within each subset and by use of the patient characteristic of a given subset and the coefficients obtained in the other subset. This approach essentially tests the reproducibility of the estimation of the regression coefficients. In boot-strap analysis, replicate populations are constructed by sampling with replacement from each hospital's population. These replicate populations are of equal size but differ from each other in case-mix. Regression analyses are then performed independently on each boot-strap replicate.

Rank-order (Spearman) correlation coefficients of standardized residuals, the difference between the actual and predicted mortality rates divided by the standard error of that difference, were used to compare the results of the various analyses. In addition, the reproducibility of the identification of "outliers", hospitals whose standardized residuals were above +1.96 or below -1.96, was evaluated by ascertaining what fraction of outliers found in one year were still outliers in a subsequent year and what proportion of outliers on first-occurring admissions in 1986 were also outliers when last-occurring admission were analyzed.

SUMMARY

The tabulation of the numbers of cases at risk (i.e. the number of patients whose last discharge in 1986 was from the given hospital), of the percentage of these persons who died within 30 days of the date of admission for that hospitalization, and of the range of predicted mortality rates encompassing 95% of the probable values on the logit scale forms the core of the present publication. The observed overall mortality rates of approximately 4% of the hospitals place them more than 1.96 standard errors above the rate predicted for the case-mix of the patients of that same hospital. However, this quantity is very dependent on the precise formulation of the variance. If the interhospital variance is omitted, the number of "high outliers" rises to about 11%. In contrast, the number of "high outliers" computed by means of multiple linear regression is 2.5%. However, the variance, or more precisely, the standard error appears to behave as a scale factor affecting the shape of the distribution but to have little influence on the position of a hospital relative to the others. Thus, the Spearman correlation coefficient of residuals and of standardized residuals is about 0.95, i.e., the order is determined predominantly by the residual itself, the difference between the observed and the predicted mortality rates.

The stability of the predicted mortality rates when the case-mix of the hospital is held constant is attested to by the results of cross-validation: the Spearman correlation coefficients of standardized residuals calculated from the vector of covariates and regression coefficients estimated in the same subset with standardized residuals obtained from the same vector of covariates but regression coefficients estimated in the complementary subset are 0.99 or higher for various diagnostic categories including the most heterogeneous, cancer. In contrast, the Spearman correlation coefficients of standardized residuals obtained in successive boot-strap iterations, in which the case-mix of the hospital is allowed to vary but other characteristics are implicitly held constant, lie in the range 0.6-0.7. The implication of this last, which bears importantly on year-to-year stability of rankings, is that there remain important causes of variability in outcomes associated with variations in patient characteristics (such as severity of illness) and other factors that have not been taken into account in the models used in the present analyses.

Comparison of standardized residuals obtained by logistic regression at the patient level and by linear regression at the hospital level yields Spearman correlation coefficients that lie in the range 0.92-0.99 for the specific diagnostic categories. For the overall mortality rate, the Spearman correlation coefficient is 0.83. However, in this instance the logistic and linear model are specified differently. In the

logistic model, the results for overall mortality are obtained by simple aggregation of the results of the analyses of the specific diagnostic categories, plus the category "other", whereas in the linear model the diagnostic categories are treated as covariates. A rank-order correlation coefficient of 0.89 is also obtained when overall mortality assessed by indirect standardization is compared with the results of logistic regression. Multiple linear regression gives a convenient estimate of predictive power in the proportion of the variance accounted for by the model. For last-occurring admission and specific diagnostic categories this lies in the range of a few percent to 37%, the latter applying to the category "cancer." For overall mortality, this quantity is 59%. Almost the entire (95%) predictive power of the model for overall mortality is accounted for by ten patient characteristics: age over 85, severe acute heart disease, sepsis, pulmonary disease, cancer as a comorbidity, cerebrovascular accidents, renal disease as a comorbidity, metabolic and electrolyte disturbances, severe chronic heart disease, and age between 70 and 74.

The validity and utility of the approach used herein is best tested by comparing the results of analyses of first-and last-occurring admissions in the same calendar year and of patterns observed in successive years. When comparing first-and last-occurring admissions it is important to note that about two-thirds of hospital patients have only one discharge in a given calendar year and that one-third have multiple admissions. Therefore, some correlation will be forced by the overlap of first and last-occurring admissions. The average probability of death within 30 days of a first-occurring admissions in 1986 was 6.9% and that for the last-occurring admission was 11.7%. Clearly, these hospitalizations are associated with very different risks. For 1986 discharges, the Spearman correlation coefficient of standardized residuals for first-and last-occurring admissions was 0.83. In addition, about two-thirds of the hospitals identified as high outliers for first admissions were also high outliers based on analysis of outcomes of last-occurring admissions (71% if the interhospital variance term was not used in the calculation of the standardized residual and 64% if it was).

The Spearman correlation coefficients of standardized residuals for last-occurring admissions in 1985 and 1986 were 0.61 (0.57 if the interhospital variance component is included in the variance) and 0.51 (0.48) when 1984 and 1986 rankings are compared. The concordance of high outliers in 1985 and 1986 was 48% and for 1984 and 1986 it was 44%.

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